Index to Volume 78

January–June, 1993

Author Index

ABDULHAK M. *See* Rossitch E Jr, 598

ABE T, SUGISHITA M, YATSUZUKA S, TASHIBU K, ONOUE H, SUZUKI T, NAKAMURA N. Transcallosal interforniceal approach for a posteriorly projecting high basilar bifurcation aneurysm. Case report, 970

ADAMS DA. *See* Tindall GT, 205

ADAMS EF. *See* Todo T, 463

ALBRIGHT AL, LEE PA. Neurosurgical treatment of hypothalamic hamartomas causing precocious puberty, 77

ALCÁNTARA S. *See* Ferrer I, 133

ALDRICH EF, WEBER PB, CROW WN. Halifax intralaminar clamp for posterior cervical fusion: a long-term follow-up review, 702

AL-JAMALI A. *See* Jamjoom ZAB, 297

AL-RODHAN NRF, SUNDT TM JR, PIEPGRAS DG, NICHOLS DA, RÜFENACHT D, STEVENS LN. Occlusive hyperemia: a theory for the hemodynamic complications following resection of intracerebral arteriovenous malformations, 167

AL-SARRAF M. *See* Eyre HJ, 909

AMACHER AL. Cervical spondyloptosis. Letters, 853

AMMIRATI M, MA J, CHEATHAM ML, MAXWELL D, BLOCH J, BECKER DP. Drilling the posterior wall of the petrous pyramid: a microneurosurgical anatomical study, 452

———, ———, ———, MEI ZT, BLOCH J, BECKER DP. The mandibular swing-transcervical approach to the skull base: anatomical study. Technical note, 673

ANAGNOSTOPOULOS AV. *See* Bernstein JJ, 240

ANDERSSON B. *See* Mathiesen T, 562

ANSON JA, SPETZLER RF. Surgical resection of intramedullary spinal cord cavernous malformations, 446

———. *See* Greene KA, 974

ANTONIADES HN. *See* Maxwell T, 456

APFEL R. *See* Jachimczak P, 944

ARADACHI H. *See* Kobayashi H, 481

ARAI M. *See* Kuroiwa T, 126

ARAI Y. *See* Kobayashi H, 481

ARIAS JM. *See* King TT, 720

ARMSTRONG DC. *See* Chumas PD, 568

———. *See* Jay V, 654

ARONIN PA. *See* Ledoux MS, 821

ARRUDA J. *See* Friedman AH, 46

ASCH HL. *See* Silvers HR, 695

AYMARD A. *See* Khayata MH, 661

AZZAM NA. *See* Zalewski AA, 794

AZZAM RN. *See* Zalewski AA, 794

BALASUBRAMANIAM V. Thalamic target for tremor. Letters, 312

BALDERRAMA J. *See* Revuelta R, 499

BARNA BP. *See* Iwasaki K, 952

BARNETT GH, GEWIRTZ R. Transnasal stereotactic biopsy. Letters, 524

———, KORMOS DW, STEINER CP, WEISENBERGER J. Intraoperative localization using an armless, frameless stereotactic wand. Technical note, 510

———. *See* Iwasaki K, 952

BAROLAT G, MASSARO F, HE J, ZEME S, KETCIK B. Mapping of sensory responses to epidural stimulation of the intraspinal neural structures in man, 233

BAUER K. *See* Herman MD, 997

BEATTY CW. *See* Ebersold MJ, 154

BEBIN M. Book review, 848

BECKER DP. *See* Ammirati M, 452, 673

BECKER LE. *See* Jay V, 654

———. *See* Pollack IF, 859

BEHL C. *See* Jachimczak P, 944

BERENDSEN W. *See* Tulleken CAF, 477

BERENSTEIN A. *See* Jafar JJ, 60

———. *See* Kupersmith MJ, 1008

BERGER MS. *See* Pilcher WH, 891

BERHO M. *See* Blumenthal D, 287

BERNSTEIN JJ, ANAGNOSTOPOULOS AV, HATTWICK EA, LAWS ER JR. Human-specific c-*neu* proto-oncogene protein overexpression in human malignant astrocytomas before and after xenografting, 240

BERRINGTON NR. Posttraumatic spinal cord tethering. Case report, 120

BERTOLIS G. *See* Sharma RR, 669

BEST TJ. *See* Midha R, 90

BETZ AL. *See* Menzies SA, 257

BHOJRAJ SY. Cervical spondyloptosis. Letters, 853

BILLER BMK. *See* Hsu DW, 753

BLASDEL GG. *See* Haglund MM, 785

BLOCH J. *See* Ammirati M, 452, 673

BLOOMFIELD S. *See* Blumenthal D, 287

BLUMENTHAL D, BERHO M, BLOOMFIELD S, SCHOCHET SS JR, KAUFMAN HH. Childhood meningioma associated with meningioangiomatosis. Case report, 287

BOGDAHN U. *See* Jachimczak P, 944

BOK APL, PETER JC. Subdural empyema: burr holes or craniotomy? A retrospective computerized tomography-era analysis of treatment in 90 cases, 574

BOVA FJ. *See* Spiegelmann R, 638

BOYDSTON WR. *See* Hudgins RJ, 199

BREAKEFIELD XO. *See* Frim DM, 267

BREM H. *See* Takamiya Y, 470

BROCK M. *See* Mayer HM, 216

BRODERICK JP, BROTT T, TOMSICK T, MILLER R, HUSTER G. Intracerebral hemorrhage more than twice as common as subarachnoid hemorrhage, 188

BRONSTEIN AD. *See* Scearce TA, 666

BROTHERS M. Book review, 150

BROTT T. *See* Broderick JP, 188

BRUNORI A, VAGNOZZI R, GIUFFRÈ R. Antonio Pacchioni (1665–1726): early studies of the dura mater. Historical vignette, 515

BRYSCH W. *See* Jachimczak P, 944

BUCHHOLZ R. *See* Schöning M, 776

BULLOCK R. *See* Grosset DG, 183

BURCHIEL KJ, JOHANS TJ, OCHOA J. The surgical treatment of painful traumatic neuromas, 714

———. *See* Coffey RJ, 226

———. *See* Rohrer DC, 122

BURGER PC. *See* Wilkins RH, 492

BURGGASSER G. *See* Deutinger M, 709

BURSTEIN FD. *See* Hudgins RJ, 199

CAHILL D. *See* Coffey RJ, 226

CANER H. *See* Handa Y, 112

CAPUTI F. *See* Friedman AH, 46

CAPUTY AJ. Myelography still useful. Letters, 1010

CARCELLER F. *See* Roda JM, 829
CARRASCO VN. *See* Glasscock ME III, 864
CASASCO A. *See* Khayata MH, 661
CASCINO TL. *See* Coffey RJ, 903
———. *See* Forsyth PA, 741
CASIANO RR. *See* Landy HJ, 26
CHABAL C. *See* Coffey RJ, 226
CHAKRABORTTY S, OI S, YOSHIDA Y, YAMADA H, YAMAGUCHI M, TAMAKI N, MATSUMOTO S. Myelomeningocele and thick filum terminale with tethered cord appearing as a human tail. Case report, 966
CHALOUPKA JC, GUGLIELMI G, VIÑUELA F. Direct thrombosis of aneurysms. Letters, 1006
———, VIÑUELA F, DUCKWILER GR. Perfusion pressure and risk of AVM hemorrhage. Letters, 850
CHANDRAMALA. *See* Reddy PK, 294
CHANDY MJ. *See* Rajshekhar V, 402
CHANG CN. *See* Tsai MD, 129
CHEATHAM ML. *See* Ammirati M, 452, 673
CHOI IS. *See* Jafar JJ, 60
CHOI S. *See* Wolf AL, 54
CHOI SC. *See* Levasseur JE, 610
———. *See* Muizelaar JP, 375
CHOU SN. Book review, 521
CHRISTY JH. *See* Tindall GT, 205
CHUMAS PD, ARMSTRONG DC, DRAKE JM, KULKARNI AV, HOFFMAN HJ, HUMPHREYS RP, RUTKA JT, HENDRICK EB. Tonsillar herniation: the rule rather than the exception after lumboperitoneal shunting in the pediatric population, 568
CIRIC I. Paul C. Bucy, M.D. 1904–1992, 693
CLARK RV. *See* Tindall GT, 205
CLARKE A. *See* Coffey RJ, 226
COCKBURN M. *See* Grosset DG, 183
COFFEY RJ, CAHILL D, STEERS W, PARK TS, ORDIA J, MEYTHALER J, HERMAN R, SHETTER AG, LEVY R, GILL B, SMITH R, WILBERGER J, LOESER JD, CHABAL C, FELER C, ROBERTSON JT, PENN RD, CLARKE A, BURCHIEL KJ, LEIBROCK LG. Intrathecal baclofen for intractable spasticity of spinal origin: results of a long-term multicenter study, 226
———, CASCINO TL, SHAW EG. Radiosurgical treatment of recurrent hemangiopericytomas of the meninges: preliminary results, 903
CONESA G. *See* Ferrer I, 133
COSGROVE GR. Book review, 520
COX C. *See* Priest JR, 158
CRAVIOTO H. *See* Schiffer D, 587
CROCKARD HA, HEILMAN AE, STEVENS JM. Progressive myelopathy secondary to odontoid fractures: clinical, radiological, and surgical features, 579
CROW WN. *See* Aldrich EF, 702
CROWLEY JJ. *See* Eyre HJ, 909
CRUZ J. Brain ischemia in head injury. Letters, 522
CSIFFARY A. *See* Morreale VM, 959

DATE I. *See* Kinugasa K, 1006
DAVIES KG, MAXWELL RE, FRENCH LA. Hemispherectomy for intractable seizures: long-term results in 17 patients followed for up to 38 years, 733
DAVIS AJ. *See* Jafar JJ, 60
DAVIS DG. *See* Lu WY, 979
DAY JD, FUKUSHIMA T. Suction control of ultrasonic aspirators. Letters, 688
DE LA MONTE S. *See* Hsu DW, 753
DELASHAW JB. *See* Glasser RS, 383
DE LIBERO G. *See* Merlo A, 630
DER-MINASSIAN V. *See* Morreale VM, 959
DEUTINGER M, GIRSCH W, BURGGASSER G, WINDISCH A, MAYR N, FREILINGER G. Clinical and electroneurographic evaluation of sensory/motor-differentiated nerve repair in the hand, 709
DEVAUX BC, O'FALLON JR, KELLY PJ. Resection, biopsy, and survival in malignant glial neoplasms. A retrospective study of clinical parameters, therapy, and outcome, 767
DION JE. *See* Lylyk P, 438
DIRINGER MN, KIRSCH JR, HANLEY DF, TRAYSTMAN RJ. Altered cerebrovascular CO_2 reactivity following subarachnoid hemorrhage in cats, 915
DÖRRIES R. *See* Jachimczak P, 944
DOWD CF. *See* Higashida RT, 192
DOZIER JC. *See* Forsyth PA, 741
DRAKE CG. The myth of eloquent cortex, or what is non-eloquent cortex? Letters, 1009
———. *See* Redekop GJ, 413
DRAKE JM. *See* Chumas PD, 568
DRAPKIN AJ. Multiloculated chronic subdural hematomas. Letters, 525
DUCKWILER GR. *See* Chaloupka JC, 850
———. *See* Lylyk P, 438
DU PLESSIS JJ. Sclerosteosis: neurosurgical experience with 14 cases, 388

EBARA S. *See* Wada E, 658
EBERSOLD MJ. Book review, 520
———. Facial reanimation. Letters, 524
———. Spinal accessory-facial nerve anastomosis. Letters, 312
———, HARNER SG, BEATTY CW, HARPER CM, QUAST LM. Preservation of hearing in acoustic neurinoma surgery. Letters, 154
EGEMEN N. Suction control of ultrasonic aspirators. Letters, 688
EISENBERG HM, KADEKARO M, FREEMAN S, TERRELL ML. Metabolism in the globus pallidus after fetal implants in rats with nigral lesions, 83
ELISEVICH KV. *See* Redekop GJ, 413
ELTRINGHAM JR. *See* Eyre HJ, 909
ELWOOD PW. *See* Hanigan WC, 32
ENDO S. *See* Hirashima Y, 592
EPSTEIN FJ, FARMER JP. Brain-stem glioma growth patterns, 408
———, OZEK M. The plated bayonet: a new instrument to facilitate surgery for intra-axial neoplasms of the spinal cord and brain stem. Technical note, 505
ESPAÑOL I. *See* Ferrer I, 133
ESTES ML. *See* Iwasaki K, 952
EVANS PJ. *See* Midha R, 90
EYRE HJ, CROWLEY JJ, TOWNSEND JJ, ELTRINGHAM JR, MORANTZ RA, SCHULMAN SF, QUAGLIANA JM, AL-SARRAF M. A randomized trial of radiotherapy versus radiotherapy plus CCNU for incompletely resected low-grade gliomas: A Southwest Oncology Group study, 909

FAHLBUSCH R. *See* Todo T, 463
FALK-WADE JA. *See* Midha R, 90
FARMER JP. *See* Epstein FJ, 408
FAUST PL. *See* Mayer SA, 994
FAYE-PETERSEN OM. *See* Ledoux MS, 821
FELER C. *See* Coffey RJ, 226
FERRER I, ISAMAT F, LÓPEZ-OBARRIO L, CONESA G, RIMBAU J, ALCÁNTARA S, ESPAÑOL I, ZÚJAR MJ. Parvalbumin and calbindin D-28K immunoreactivity in central ganglioglioma and dysplastic gangliocytoma of the cerebellum. Report of two cases, 133
FESSLER RG. *See* Glasser RS, 383
FILGUEIRA L. *See* Merlo A, 630
FINDLAY JM. Book review, 685
FISCHER C. *See* Fischer G, 154

Index

FISCHER G, FISCHER C, RÉMOND J. Preservation of hearing in acoustic neurinoma surgery. Letters, 154
FLICKINGER JC. *See* Linskey ME, 645
FODE NC. *See* Whisnant JP, 726
FORSYTH PA, CASCINO TL, SHAW EG, SCHEITHAUER BW, O'FALLON JR, DOZIER JC, PIEPGRAS DG. Intracranial chordomas: a clinicopathological and prognostic study of 51 cases, 741
FOURNIER D. *See* Mercier P, 313
FOX MW, ONOFRIO BM. The natural history and management of symptomatic and asymptomatic vertebral hemangiomas, 36
———, ———, KILGORE JE. Neurological complications of ankylosing spondylitis, 871
FRASER K. *See* Higashida RT, 192
FREEMAN S. *See* Eisenberg HM, 83
FREILINGER G. *See* Deutinger M, 709
FRENCH LA. *See* Davies KG, 733
FRIED I. The myth of eloquent cortex, or what is non-eloquent cortex? Letters, 1009
FRIEDLANDER RM. *See* Takamiya Y, 470
FRIEDMAN AH. Book review, 152
———. Omission of book reviewer: correction. Letters, 1011
———, NASHOLD BS JR, SHARP R, CAPUTI F, ARRUDA J. Treatment of spasmodic torticollis with intradural selective rhizotomies, 46
FRIEDMAN WA. Book review, 305
———. *See* Spiegelmann R, 638
FRIM DM, SHORT MP, ROSENBERG WS, SIMPSON J, BREAKEFIELD XO, ISACSON O. Local protective effects of nerve growth factor-secreting fibroblasts against excitotoxic lesions in the rat striatum, 267
FUJIMOTO M. *See* Hashimoto N, 525
FUJIWARA S. *See* Mizoi K, 430
FUKUSHIMA T. *See* Day JD, 688

GAAB MR. *See* Naraghi R, 310
GALANOPOULOS T. *See* Maxwell T, 456
GARCIA CI. *See* Levasseur JE, 610
GARRITY JA. Book review, 307
GARTNER M. *See* Yeh HS, 12
GASPAR LE. *See* Redekop GJ, 413
GEWIRTZ R. *See* Barnett GH, 524
GIBO H. *See* Kyoshima K, 987
GILL B. *See* Coffey RJ, 226
GILLER CH. Book review, 306
GIORDANA MT. *See* Schiffer D, 587
GIRSCH W. *See* Deutinger M, 709
GIUFFRÈ R. *See* Brunori A, 515
GLASSCOCK ME III, HAYS JW, MINOR LB, HAYNES DS, CARRASCO VN. Preservation of hearing in surgery for acoustic neuromas, 864
GLASSER RS, KNEGO RS, DELASHAW JB, FESSLER RG. The perioperative use of corticosteroids and bupivacaine in the management of lumbar disc disease, 383
GOLDENBERG TM. *See* Pritz MB, 853
GOLDMAN M. *See* Lu WY, 979
GORDON LI. *See* Herman MD, 997
GOTTLIEB SF. *See* Neubauer RA, 687
GRANE P. *See* Mathiesen T, 748
GRATZL O. *See* Merlo A, 630
GREENE KA, ANSON JA, SPETZLER RF. Giant serpentine middle cerebral artery aneurysm treated by extracranial-intracranial bypass. Case report, 974
GREGOR A. *See* Lach B, 101
GRØNDAHL TØ, LANGMOEN IA. Epileptogenic effect of antibiotic drugs, 938
GROSSET DG, STRAITON J, MCDONALD I, COCKBURN M, BULLOCK R. Use of transcranial Doppler sonography to predict development of a delayed ischemic deficit after subarachnoid hemorrhage, 183
GRUBER DP. *See* Rohrer DC, 122
GUGLIELMI G. *See* Chaloupka JC, 1006
———. *See* Lylyk P, 438
GUO WY. *See* Lindquist C, 531
GURUSINGHE NT. *See* Sharma RR, 669
GUY G. *See* Mercier P, 313

HAGLUND MM, OJEMANN GA, BLASDEL GG. Optical imaging of bipolar cortical stimulation, 785
HAINES SJ. *See* Nida TY, 70
HAKIM F. *See* Hsu DW, 753
HALBACH VV. *See* Higashida RT, 192
HALEY EC JR, KASSELL NF, TORNER JC. A randomized trial of nicardipine in subarachnoid hemorrhage: angiographic and transcranial Doppler ultrasound results. A report of the Cooperative Aneurysm Study, 548
———, ———, ———. A randomized controlled trial of high-dose intravenous nicardipine in aneurysmal subarachnoid hemorrhage. A report of the Cooperative Aneurysm Study, 537
HALLINAN JM. *See* Morgan MK, 176
HAMILTON MG, SPETZLER RF. Book review, 847
HANDA Y, KUBOTA T, TSUCHIDA A, KANEKO M, CANER H, KOBAYASHI H, KUBOTA T. Effect of systemic hypotension on cerebral energy metabolism during chronic cerebral vasospasm in primates, 112
———. *See* Kobayashi H, 481
HANIGAN WC, POWELL FC, ELWOOD PW, HENDERSON JP. Odontoid fractures in elderly patients, 32
HANLEY DF. *See* Diringer MN, 915
HARAN RP. *See* Rajshekhar V, 402
HARDER F. *See* Merlo A, 630
HARE GMT. *See* Midha R, 90
HARNER SG. *See* Ebersold MJ, 154
HARPER CM. *See* Ebersold MJ, 154
HASHIMOTO N, SAKAKIBARA T, YAMAMOTO K, FUJIMOTO M, YAMAKI T. Multiloculated chronic subdural hematomas. Letters, 525
HATTWICK EA. *See* Bernstein JJ, 240
HAYNES DS. *See* Glasscock ME III, 864
HAYS JW. *See* Glasscock ME III, 864
HE J. *See* Barolat G, 233
HEARY RF, MANIKER AH, KRIEGER AJ, SAPRU HN. Cardiovascular responses to global cerebral ischemia: role of excitatory amino acids in the ventrolateral medullary pressor area, 922
HEBERER M. *See* Merlo A, 630
HECHT ST. Book review, 307
HEDLEY-WHYTE ET. *See* Hsu DW, 753
HEFFEZ DS. Book review, 1004
HEILMAN AE. *See* Crockard HA, 579
HEMET J. *See* Laquerriere A, 487
HENDERSON JP. *See* Hanigan WC, 32
HENDRICK EB. *See* Chumas PD, 568
HERBRETEAU D. *See* Khayata MH, 661
HERMAN BH. *See* Morreale VM, 959
HERMAN MD, GORDON LI, KAUL K, VARIAKOJIS D, BAUER K, LEVY RM. Systemic T-cell lymphoma presenting with isolated neurological dysfunction and intraparenchymal brain lesions. Case report, 997
HERMAN R. *See* Coffey RJ, 226
HIESHIMA GB. *See* Higashida RT, 192
———. *See* Wilson CB, 165
HIGASHIDA RT, TSAI FY, HALBACH VV, DOWD CF, SMITH T, FRASER K, HIESHIMA GB. Transluminal angioplasty for atherosclerotic disease of the vertebral and basilar arteries, 192
HIPPE BR. Book review, 152
HIRASHIMA Y, ENDO S, OTSUJI T, KARASAWA K, NOJIMA S, TAKAKU A. Platelet-activating factor and cerebral vasospasm following subarachnoid hemorrhage, 592

HIRAYAMA T. *See* Tsubokawa T, 393
HO YS. *See* Tsai MD, 129
HOFF JT. Neurovascular compression for CNS abnormalities. Letters, 523
———. *See* Menzies SA, 257
HOFFMAN HJ. *See* Chumas PD, 568
———. *See* Jay V, 654
———. *See* Pollack IF, 859
HONAVAR M. *See* Kirkpatrick PJ, 19
HSU DW, HAKIM F, BILLER BMK, DE LA MONTE S, ZERVAS NT, KLIBANSKI A, HEDLEY-WHYTE ET. Significance of proliferating cell nuclear antigen index in predicting pituitary adenoma recurrence, 753
HUDGINS RJ, BURSTEIN FD, BOYDSTON WR. Total calvarial reconstruction for sagittal synostosis in older infants and children, 199
HUMPHREYS RP. *See* Chumas PD, 568
———. *See* Pollack IF, 859
HUNTER DA. *See* Midha R, 90
HUSTER G. *See* Broderick JP, 188
HUSTON J III. *See* Meyer FB, 879
HWANG P. *See* Jay V, 654

IDE H. *See* Kobayashi H, 481
INAGAWA T. Management outcome in the elderly patient following subarachnoid hemorrhage, 554
INDUMATHI D. *See* Reddy PK, 294
ISACSON O. *See* Frim DM, 267
ISAMAT F. *See* Ferrer I, 133
IWAI A. *See* Shiozaki T, 501
IWASAKI K, ROGERS LR, BARNETT GH, ESTES ML, BARNA BP. Effect of recombinant tumor necrosis factor-α on three-dimensional growth, morphology, and invasiveness of human glioblastoma cells *in vitro*, 952

JACHIMCZAK P, BOGDAHN U, SCHNEIDER J, BEHL C, MEIXENSBERGER J, APFEL R, DÖRRIES R, SCHLINGENSIEPEN KH, BRYSCH W. The effect of transforming growth factor-β_2-specific phosphorothioate-anti-sense oligodeoxynucleotides in reversing cellular immunosuppression in malignant glioma, 944
JAFAR JJ, DAVIS AJ, BERENSTEIN A, CHOI IS, KUPERSMITH MJ. The effect of embolization with N-butyl cyanoacrylate prior to surgical resection of cerebral arteriovenous malformations, 60
———. *See* Kupersmith MJ, 1008
JAMJOOM AB. *See* Jamjoom ZAB, 297
JAMJOOM ZAB, RAINA V, AL-JAMALI A, JAMJOOM AB, YACUB B, SHARIF HS. Intracranial xanthogranuloma of the dura in Hand-Schüller-Christian disease. Case report, 297
JANOTA I. *See* Kirkpatrick PJ, 19
JAY V, BECKER LE, OTSUBO H, HWANG P, HOFFMAN HJ, ARMSTRONG DC. Neuronal heterotopia with capillary penetration of neurons and cortical dysplasia in a patient with complex partial seizures. Case report, 654
JOHANS TJ. *See* Burchiel KJ, 714
JOHNSON DL. Intractable hiccups: treatment by microvascular decompression of the vagus nerve. Case report, 813
JOHNSTON IH. *See* Morgan MK, 176
JURETIC A. *See* Merlo A, 630

KADEKARO M. *See* Eisenberg HM, 83
KADOTA Y. *See* Zalewski AA, 794
KAMENKA JM. *See* Pencalet P, 603
KANEKO M. *See* Handa Y, 112
KARASAWA K. *See* Hirashima Y, 592
KARLSSON B. *See* Lindquist C, 531
KÄRRE K. *See* Yamasaki T, 619
KASSELL NF. *See* Haley EC Jr, 537, 548
KATAYAMA Y. *See* Tsubokawa T, 393
KAUFMAN HH. Treatment of head injuries in the American Civil War. Historical vignette, 838
———. *See* Blumenthal D, 287
KAUL K. *See* Herman MD, 997
KEARSE LA JR, MARTIN D, MCPECK K, LOPEZ-BRESNAHAN M. Computer-derived density spectral array in detection of mild analog electroencephalographic ischemic pattern changes during carotid endarterectomy, 884
KELLY PJ. Thalamic target for tremor. Letters, 312
———. Thoralf M. Sundt, Jr., M.D., 1930-1992, 1
———. *See* Devaux BC, 767
KETCIK B. *See* Barolat G, 233
KHAYATA MH, AYMARD A, CASASCO A, HERBRETEAU D, WOIMANT F, MERLAND JJ. Selective endovascular techniques in the treatment of cerebral mycotic aneurysms. Report of three cases, 661
KIKUCHI H. *See* Yamasaki T, 619
KILGORE JE. *See* Fox MW, 871
KIM P. *See* Yoshimoto Y, 807
KING TT, SPARROW OC, ARIAS JM, O'CONNOR AF. Repair of facial nerve after removal of cerebellopontine angle tumors: a comparative study, 720
KINUGASA K, MAESHIRO T, SAKURAI M, OHMOTO T. Superficial temporal artery interposition graft after resection of bilateral anterior cerebral arteries. Case report, 983
———, MANDAI S, DATE I, OHMOTO T. Direct thrombosis of aneurysms. Letters, 1006
———, SAKURAI M, OHMOTO T. Contralateral external carotid-to-middle cerebral artery graft using the saphenous vein. Case report, 290
KIRKPATRICK PJ, HONAVAR M, JANOTA I, POLKEY CE. Control of temporal lobe epilepsy following *en bloc* resection of low-grade tumors, 19
KIRSCH JR. *See* Diringer MN, 915
KISHIKAWA M. *See* Shiozaki T, 501
KLEIN G. *See* Yamasaki T, 619
KLEINEBERG B. *See* Naraghi R, 310
KLIBANSKI A. *See* Hsu DW, 753
KLUBES P. *See* Morreale VM, 959
KNEGO RS. *See* Glasser RS, 383
KOBAYASHI H, IDE H, ARADACHI H, ARAI Y, HANDA Y, KUBOTA T. Histological studies of intracranial vessels in primates following transluminal angioplasty for vasospasm, 481
———. *See* Handa Y, 112
KOBAYASHI S. *See* Kyoshima K, 987
KONDZIOLKA D, LUNSFORD LD. Preservation of hearing in acoustic neurinoma surgery. Letters, 154
———. *See* Linskey ME, 645
KONTOS HA. *See* Levasseur JE, 610
———. *See* Muizelaar JP, 375
KORMOS DW. *See* Barnett GH, 510
KOSHU K. *See* Mizoi K, 430
KOYAMA S. *See* Tsubokawa T, 393
KRETH FW, WARNKE PC, SCHEREMET R, OSTERTAG CB. Surgical resection and radiation therapy versus biopsy and radiation therapy in the treatment of glioblastoma multiforme, 762
KRIEGER AJ. *See* Heary RF, 922
KUBOTA T. *See* Handa Y, 112
———. *See* Kobayashi H, 481
KULKARNI AV. *See* Chumas PD, 568
KUMAR RSA. *See* Reddy PK, 294
KUPERSMITH MJ, BERENSTEIN A, JAFAR J. Which cavernous sinus aneurysms should be treated? Letters, 1008
———. *See* Jafar JJ, 60
KUROIWA T, TANABE H, TAKATSUKA H, ARAI M, SAKAI N, NAGASAWA S, OHTA T. Rapid spontaneous resolution of acute extradural and subdural hematomas. Case report, 126
KUROYANAGI T. *See* Kyoshima K, 987
KUWAHARA O. *See* Wada E, 658

Index

KYOSHIMA K, KOBAYASHI S, GIBO H, KUROYANAGI T. A study of safe entry zones via the floor of the fourth ventricle for brainstem lesions. Report of three cases, 987

LACH B, SCHEITHAUER B, GREGOR A, WICK MR. Colloid cyst of the third ventricle. A comparative immunohistochemical study of neuraxis cysts and choroid plexus epithelium, 101
LANDY HJ, RAMSAY RE, SLATER J, CASIANO RR, MORGAN R. Vagus nerve stimulation for complex partial seizures: surgical technique, safety, and efficacy, 26
LANGMOEN IA. *See* Grøndahl TØ, 938
LAQUERRIERE A, YUN J, TIOLLIER J, HEMET J, TADIE M. Experimental evaluation of bilayered human collagen as a dural substitute, 487
LAWS ER JR. Book review, 519, 848
———. Facial reanimation. Letters, 524
———. *See* Bernstein JJ, 240
LEBLANC R. *See* Preul MC, 280
LEDOUX MS, FAYE-PETERSEN OM, ARONIN PA, VAID YN, PITTS RM. Lumbosacral neurenteric cyst in an infant. Case report, 821
LEE AP. *See* Morreale VM, 959
LEE PA. *See* Albright AL, 77
LEIBROCK LG. *See* Coffey RJ, 226
LEUTJE CM. *See* Whittaker CK, 154
LEVASSEUR JE, PATTERSON JL JR, GARCIA CI, MOSKOWITZ MA, CHOI SC, KONTOS HA. Effect of neonatal capsaicin treatment on neurogenic pulmonary edema from fluid-percussion brain injury in the adult rat, 610
LEVI L. *See* Wolf AL, 54
LEVITT M. *See* Rossitch E Jr, 598
LEVY R. *See* Coffey RJ, 226
LEVY RM. *See* Herman MD, 997
LEWIS PJ. *See* Silvers HR, 695
LINDQUIST C, GUO WY, KARLSSON B, STEINER L. Radiosurgery for venous angiomas, 531
———. *See* Mathiesen T, 748
LINSKEY ME, MARTINEZ AJ, KONDZIOLKA D, FLICKINGER JC, MAITZ AH, WHITESIDE T, LUNSFORD LD. The radiobiology of human acoustic schwannoma xenografts after stereotactic radiosurgery evaluated in the subrenal capsule of athymic mice, 645
———, SEKHAR LN. Which cavernous sinus aneurysms should be treated? Letters, 1008
LJUNGGREN B. Herbert Olivecrona: founder of Swedish neurosurgery. Historical vignette, 142
LJUNGGREN HG. *See* Yamasaki T, 619
LO EH. Perfusion pressure and risk of AVM hemorrhage. Letters, 156
LOESER JD. *See* Coffey RJ, 226
LOFTENIUS A. *See* Mathiesen T, 562
LOPEZ-BRESNAHAN M. *See* Kearse LA Jr, 884
LÓPEZ-OBARRIO L. *See* Ferrer I, 133
LU WY, GOLDMAN M, YOUNG B, DAVIS DG. Optic nerve ganglioglioma. Case report, 979
LUNSFORD LD. *See* Kondziolka D, 154
———. *See* Linskey ME, 645
LYLYK P, VIÑUELA F, DION JE, DUCKWILER G, GUGLIELMI G, PEACOCK W, MARTIN N. Therapeutic alternatives for vein of Galen vascular malformations, 438
LYNCH T. *See* Mayer SA, 994
LYONS AE. Neurovascular compression for CNS abnormalities. Letters, 523

MA J. *See* Ammirati M, 452, 673
MACKINNON SE. *See* Midha R, 90
MAESHIRO T. *See* Kinugasa K, 983
MAIMAN DJ. Book review, 306
MAITZ AH. *See* Linskey ME, 645
MALI WPTM. *See* Tulleken CAF, 477
MALICK A. *See* Takamiya Y, 470
MANDAI S. *See* Kinugasa K, 1006
MANIKER AH. *See* Heary RF, 922
MARDER K. *See* Mayer SA, 994
MARMAROU A. *See* Muizelaar JP, 375
———. *See* Wolf AL, 54
MARTIN D. *See* Kearse LA Jr, 884
MARTIN N. *See* Lylyk P, 438
MARTINEZ AJ. *See* Linskey ME, 645
MARTUZA RL. *See* Takamiya Y, 470
MASSARO F. *See* Barolat G, 233
MATHIESEN T, ANDERSSON B, LOFTENIUS A, VON HOLST H. Increased interleukin-6 levels in cerebrospinal fluid following subarachnoid hemorrhage, 562
———, GRANE P, LINDQUIST C, VON HOLST H. High recurrence rate following aspiration of colloid cysts in the third ventricle, 748
MATSUMOTO S. *See* Chakrabortty S, 966
MATSUURA S. *See* Tan EC, 826
MAXWELL D. *See* Ammirati M, 452
MAXWELL M, GALANOPOULOS T, NEVILLE-GOLDEN J, ANTONIADES HN. Expression of androgen and progesterone receptors in primary human meningiomas, 456
MAXWELL RE. *See* Davies KG, 733
MAYER HM, BROCK M. Percutaneous endoscopic discectomy: surgical technique and preliminary results compared to microsurgical discectomy, 216
MAYER SA, YIM GK, ONESTI ST, LYNCH T, FAUST PL, MARDER K. Biopsy-proven isolated sarcoid meningitis. Case report, 994
MAYR N. *See* Deutinger M, 709
MCDONALD I. *See* Grosset DG, 183
MCGRAIL KM. Book review, 1002
MCPECK K. *See* Kearse LA Jr, 884
MEI ZT. *See* Ammirati M, 673
MEIXENSBERGER J. *See* Jachimczak P, 944
MENZIES SA, BETZ AL, HOFF JT. Contributions of ions and albumin to the formation and resolution of ischemic brain edema, 257
MERCIER P, FOURNIER D, GUY G. Anomalies of the A_1 segment. Letter, 313
MERLAND JJ. *See* Khayata MH, 661
MERLO A, FILGUEIRA L, ZUBER M, JURETIC A, HARDER F, GRATZL O, DE LIBERO G, HEBERER M, SPAGNOLI GC. T-cell receptor V-gene usage in neoplasms of the central nervous system. A comparative analysis in cultured tumor infiltrating and peripheral blood T cells, 630
MEYER FB, HUSTON J IIII, RIEDERER SS. Pulsatile increases in aneurysm size determined by cine phase-contrast MR angiography, 879
MEYTHALER J. *See* Coffey RJ, 226
MICKLE JP. *See* Spiegelmann R, 638
MIDHA R, MACKINNON SE, EVANS PJ, BEST TJ, HARE GMT, HUNTER DA, FALK-WADE JA. Comparison of regeneration across nerve allografts with temporary or continuous cyclosporin A immunosuppression, 90
MIGHELI A. *See* Schiffer D, 587
MILHORAT TH, NOBANDEGANI F, MILLER JI, RAO C. Noncommunicating syringomyelia following occlusion of central canal in rats. Experimental model and histological findings, 274
MILLER CA. Book review, 685
MILLER JT. *See* Milhorat TH, 274
MILLER R. *See* Broderick JP, 188
MINOR LB. *See* Glasscock ME III, 864
MIZOI K, YOSHIMOTO T, TAKAHASHI A, FUJIWARA S, KOSHU K, SUGAWARA T. Prospective study on the prevention of cerebral vasospasm by intrathecal fibrinolytic therapy with tissue-type plasminogen activator, 430

MIZUNO M. *See* Tashiro T, 252
MIZUNO S. *See* Tan EC, 826
MORALES C. *See* Roda JM, 829
MORANTZ RA. *See* Eyre HJ, 909
MORGAN MK, JOHNSTON IH, HALLINAN JM, WEBER NC. Complications of surgery for arteriovenous malformations of the brain, 176
MORGAN R. *See* Landy HJ, 26
MORITAKE K. *See* Yamasaki T, 619
MORREALE VM, HERMAN BH, DER-MINASSIAN V, PALKOVITS M, KLUBES P, PERRY D, CSIFFARY A, LEE AP. A brain-tumor model utilizing stereotactic implantation of a permanent cannula, 959
MOSKOWITZ MA. *See* Levasseur JE, 610
MUIZELAAR JP. Brain ischemia in head injury. Letters, 522
———, MARMAROU A, YOUNG HF, CHOI SC, WOLF A, SCHNEIDER RL, KONTOS HA. Improving the outcome of severe head injury with the oxygen radical scavenger polyethylene glycol-conjugated superoxide dismutase: a Phase II trial, 375
———. *See* Wolf AL, 54

NAGASAWA S. *See* Kuroiwa T, 126
NAKAMURA N. *See* Abe T, 970
NARAGHI R, GAAB MR, KLEINEBERG B, WALTER GF. Neurogenic hypertension. Letters, 310
NASHOLD BS JR. *See* Friedman AH, 46
———. *See* Rossitch E Jr, 598
NASHOLD JRB. Book review, 151
NATHAL E. *See* Revuelta R, 499
NEUBAUER RA, GOTTLIEB SF. Hyperbaric oxygen for brain injury. Letters, 687
NEVILLE-GOLDEN J. *See* Maxwell T, 456
NICHOLS DA. *See* Al-Rodhan NRF, 167
NIDA TY, HAINES SJ. Multiloculated hydrocephalus: craniotomy and fenestration of intraventricular septations, 70
NOBANDEGANI F. *See* Milhorat TH, 274
NOJIMA S. *See* Hirashima Y, 592

OCHOA J. *See* Burchiel KJ, 714
O'CONNOR AF. *See* King TT, 720
ODA S. *See* Shimoda M, 423
O'FALLON JR. *See* Devaux BC, 767
———. *See* Forsyth PA, 741
O'FALLON WM. *See* Whisnant JP, 726
OGILVY CS, OJEMANN RG. Posterior fossa craniotomy for lesions of the cerebellopontine angle. Technical note, 508
OHANNA F. *See* Pencalet P, 603
OHMOTO T. *See* Kinugasa K, 290, 983, 1006
OHTA T. *See* Kuroiwa T, 126
OI S. *See* Chakrabortty S, 966
OJEMANN GA. *See* Haglund MM, 785
———. *See* Pilcher WH, 891
OJEMANN RG. *See* Ogilvy CS, 508
OLSON JJ. Book review, 1004
ONESTI ST. *See* Mayer SA, 994
ONO K. *See* Wada E, 658
ONOFRIO BM. *See* Fox MW, 36, 871
ONOUE H. *See* Abe T, 970
ORDIA J. *See* Coffey RJ, 226
OSTERTAG CB. *See* Kreth FW, 762
OTSUBO H. *See* Jay V, 654
OTSUJI T. *See* Hirashima Y, 592
OVELMEN-LEVITT J. *See* Rossitch E Jr, 598
OYESIKU NM. *See* Tindall GT, 205
OZEK M. *See* Epstein FJ, 505

PAINE JP. *See* Yamasaki T, 619
PALKOVITS M. *See* Morreale VM, 959
PAREKH HC. *See* Sharma RR, 669
PARK TS. *See* Coffey RJ, 226
PASCUAL LH. Spinal accessory-facial nerve anastomosis. Letters, 312
PATTERSON JL JR. *See* Levasseur JE, 610
PEACOCK W. *See* Lylyk P, 438
PENCALET P, OHANNA F, POULAT P, KAMENKA JM, PRIVAT A. Thienylphencyclidine protection for the spinal cord of adult rats against extension of lesions secondary to a photochemical injury, 603
PENN RD. *See* Coffey RJ, 226
PÉREZ-HIGUERAS A. *See* Roda JM, 829
PERRY D. *See* Morreale VM, 959
PETER JC. *See* Bok APL, 574
PEZZULO T. *See* Schiffer D, 587
PIEPGRAS DG, SUNDT TM JR, RAGOOWANSI AT, STEVENS L. Seizure outcome in patients with surgically treated cerebral arteriovenous malformations, 5
———. *See* Al-Rodhan NRF, 167
———. *See* Forsyth PA, 741
PILCHER WH, SILBERGELD DL, BERGER MS, OJEMANN GA. Intraoperative electrocorticography during tumor resection: impact on seizure outcome in patients with gangliogliomas, 891
PITTS RM. *See* Ledoux MS, 821
POKRUPA R. *See* Preul MC, 280
POLKEY CE. *See* Kirkpatrick PJ, 19
POLLACK IF. Book review, 1003
———, HOFFMAN HJ, HUMPHREYS RP, BECKER L. The long-term outcome after surgical treatment of dorsally exophytic brainstem gliomas, 859
POPP AJ. Book review, 309
POULAT P. *See* Pencalet P, 603
POWELL FC. *See* Hanigan WC, 32
PRABHU S. *See* Sharma RR, 669
PRAKASH GS. *See* Rajshekhar V, 402
PRAKASHAM A. *See* Reddy PK, 294
PREUL MC, LEBLANC R, TAMPIERI D, ROBITAILLE Y, POKRUPA R. Spinal angiolipomas. Report of three cases, 280
PRIEST JR, WATTERSON J, SUNG JH, COX C. Gliomatosis cerebri following radiation and chemotherapy. Letter, 158
PRITZ MB, GOLDENBERG TM. Distal catheter lengthening. Letters, 853
PRIVAT A. *See* Pencalet P, 603
PURNANAND A. *See* Reddy PK, 294

QUAGLIANA JM. *See* Eyre HJ, 909
QUAST LM. *See* Ebersold MJ, 154

RADTKE RA. Omission of book reviewer. Letters, 1011
———. *See* Wilkins RH, 492
RAGOOWANSI AT. *See* Piepgras DG, 5
RAINA V. *See* Jamjoom ZAB, 297
RAJSHEKHAR V, HARAN RP, PRAKASH GS, CHANDY MJ. Differentiating solitary small cysticercus granulomas and tuberculomas in patients with epilepsy. Clinical and computerized tomographic criteria, 402
RAMSAY RE. *See* Landy HJ, 26
RAO C. *See* Milhorat TH, 274
RAO GP. *See* Reddy PK, 294
REDDY PK, RAO GP, PRAKASHAM A, PURNANAND A, SULOCHANA C, KUMAR RSA, REDDY YR, CHANDRAMALA, INDUMATHI D. Intracerebral polyposis. Case report, 294
REDDY YR. *See* Reddy PK, 294
REDEKOP GJ, ELISEVICH KV, GASPAR LE, WIESE KP, DRAKE CG.

Conventional radiation therapy of intracranial arteriovenous malformations: long-term results, 413
REEDER RF. Book review, 1005
RÉMOND J. *See* Fischer G, 154
REVUELTA R, NATHAL E, BALDERRAMA J, TELLO A, ZENTENO M. External carotid artery fistula due to microcompression of the gasserian ganglion for relief of trigeminal neuralgia. Case report, 499
RIEDERER SS. *See* Meyer FB, 879
RIGAMONTI D. *See* Wolf AL, 54
RIMBAU J. *See* Ferrer I, 133
ROBERTSON JT. *See* Coffey RJ, 226
ROBINSON WL. *See* Wolf AL, 54
ROBITAILLE Y. *See* Preul MC, 280
ROCKSWOLD GL. Hyperbaric oxygen for brain injury. Letters, 687
RODA JM, CARCELLER F, PÉREZ-HIGUERAS A, MORALES C. Encapsulated intracerebral hematomas: a defined entity. Case report, 829
ROGERS LR. *See* Iwasaki K, 952
ROHRER DC, BURCHIEL KJ, GRUBER DP. Intraspinal extradural meningeal cyst demonstrating ball-valve mechanism of formation. Case report, 122
ROSENBERG WS. *See* Frim DM, 267
ROSENFELD JV. Transnasal stereotactic biopsy. Letters, 524
ROSSITCH E JR, ABDULHAK M, OVELMEN-LEVITT J, LEVITT M, NASHOLD BS JR. The expression of deafferentation dysesthesias reduced by dorsal root entry zone lesions in the rat, 598
RÜFENACHT D. *See* Al-Rodhan NRF, 167
RUTKA JT. *See* Chumas PD, 568

SABISTON DC JR. *See* Wilkins RH, 301
SACCO SE. *See* Whisnant JP, 726
SAKAI N. *See* Kuroiwa T, 126
SAKAKIBARA T. *See* Hashimoto N, 525
SAKURAI M. *See* Kinugasa K, 290, 983
SAMPSON JH. Book review, 308
SAPRU HN. *See* Heary RF, 922
SASAKI T. *See* Yoshimoto Y, 807
SATO O. *See* Shimoda M, 423
SCEARCE TA, SHAW CM, BRONSTEIN AD, SWANSON PD. Intraventricular fat from a ruptured sacral dermoid cyst: clinical, radiographic, and pathological correlation. Case report, 666
SCHEITHAUER BW. *See* Forsyth PA, 741
———. *See* Lach B, 101
SCHEREMET R. *See* Kreth FW, 762
SCHIFFER D, CRAVIOTO H, GIORDANA MT, MIGHELI A, PEZZULO T, VIGLIANI MC. Is polar spongioblastoma a tumor entity?, 587
SCHLINGENSIEPEN KH. *See* Jachimczak P, 944
SCHNEIDER J. *See* Jachimczak P, 944
SCHNEIDER RL. *See* Muizelaar JP, 375
SCHOCHET SS JR. *See* Blumenthal D, 287
SCHÖNING M, BUCHHOLZ R, WALTER J. Comparative study of transcranial color duplex sonography and transcranial Doppler sonography in adults, 776
SCHULMAN SF. *See* Eyre HJ, 909
SCOTT RM. Distal catheter lengthening. Letters, 853
SEKHAR LN. *See* Linskey ME, 1008
SEN C. Book review, 846
SHARIF HS. *See* Jamjoom ZAB, 297
SHARMA RR, PAREKH HC, PRABHU S, GURUSINGHE NT, BERTOLIS G. Compression of the C-2 root by a rare anomalous ectatic vertebral artery. Case report, 669
SHARP R. *See* Friedman AH, 46
SHAW CM. *See* Scearce TA, 666
SHAW EG. *See* Coffey RJ, 903
———. *See* Forsyth PA, 741
SHETTER AG. *See* Coffey RJ, 226
SHIMODA M, ODA S, TSUGANE R, SATO O. Intracranial complications of hypervolemic therapy in patients with a delayed ischemic deficit attributed to vasospasm, 423
SHIOZAKI T, TANEDA M, KISHIKAWA M, IWAI A, SUGIMOTO H, YOSHIOKA T, SUGIMOTO T. Transient and repetitive rises in blood pressure synchronized with plasma catecholamine increases after head injury. Report of two cases, 501
SHORT MP. *See* Frim DM, 267
SIEGAL T, SIEGAL T. Serotonergic manipulations in experimental neoplastic spinal cord compression, 929
SILBERGELD DL. *See* Pilcher WH, 891
SILVERS HR, LEWIS PJ, ASCH HL. Decompressive lumbar laminectomy for spinal stenosis, 695
SIMPSON J. *See* Frim DM, 267
SLATER J. *See* Landy HJ, 26
SMITH R. *See* Coffey RJ, 226
SMITH T. *See* Higashida RT, 192
SPAGNOLI GC. *See* Merlo A, 630
SPARROW OC. *See* King TT, 720
SPERO JA. Bovine thrombin-induced inhibitor of factor V and bleeding risk in postoperative neurosurgical patients. Report of three cases, 817
SPETZLER RF. Perfusion pressure and risk of AVM hemorrhage. Letters, 156, 850
———. *See* Anson JA, 446
———. *See* Greene KA, 974
———. *See* Hamilton MG, 847
———. *See* Wascher TM, 834
SPIEGELMANN R, FRIEDMAN WA, BOVA FJ, THEELE DP, MICKLE JP. LINAC radiosurgery: an animal model, 638
STEERS W. *See* Coffey RJ, 226
STEINER CP. *See* Barnett GH, 510
STEINER L. *See* Lindquist C, 531
STEVENS JM. *See* Crockard HA, 579
STEVENS LN. *See* Al-Rodhan NRF, 167
———. *See* Piepgras DG, 5
STEWART DH JR. Myelography still useful. Letters, 1010
STRAITON J. *See* Grosset DG, 183
SUGAWARA T. *See* Mizoi K, 430
SUGIMOTO H. *See* Shiozaki T, 501
SUGIMOTO T. *See* Shiozaki T, 501
SUGISHITA M. *See* Abe T, 970
SUGITA K. *See* Tashiro T, 252
SULOCHANA C. *See* Reddy PK, 294
SUNDT TM JR. *See* Al-Rodhan NRF, 167
———. *See* Piepgras DG, 5
———. *See* Whisnant JP, 726
SUNG JH. *See* Priest JR, 158
SUZUKI T. *See* Abe T, 970
SWANSON PD. *See* Scearce TA, 666

TADIE M. *See* Laquerriere A, 487
TAHA JM. *See* Yeh HS, 138
TAKAGI T. *See* Tan EC, 826
TAKAHASHI A. *See* Mizoi K, 430
TAKAKU A. *See* Hirashima Y, 592
TAKAKURA K. *See* Yoshimoto Y, 807
TAKAMIYA Y, FRIEDLANDER RM, BREM H, MALICK A, MARTUZA RL. Inhibition of angiogenesis and growth of human nerve-sheath tumors by AGM-1470, 470
TAKATSUKA H. *See* Kuroiwa T, 126
TAMAKI N. *See* Chakrabortty S, 966
TAMPIERI D. *See* Preul MC, 280
TAN EC, TAKAGI T, MATSUURA S, MIZUNO S. Acute obstructive hydrocephalus caused by a migrating intraventricular calculus. Case report, 826
TANABE H. *See* Kuroiwa T, 126
TANEDA M. *See* Shiozaki T, 501
TASHIBU K. *See* Abe T, 970
TASHIRO T, YOSHIDA J, MIZUNO M, SUGITA K. Reinforced cytotoxicity of lymphokine-activated killer cells toward glioma

cells by transfection with the tumor necrosis factor-α gene, 252
TELLO A. *See* Revuelta R, 499
TERRELL ML. *See* Eisenberg HM, 83
TEW JM JR. *See* Yeh HS, 12
THEELE DP. *See* Spiegelmann R, 638
TINDALL GT, OYESIKU NM, WATTS NB, CLARK RV, CHRISTY JH, ADAMS DA. Transsphenoidal adenomectomy for growth hormone-secreting pituitary adenomas in acromegaly: outcome analysis and determinants of failure, 205
TIOLLIER J. *See* Laquerriere A, 487
TOBLER WD. *See* Yeh HS, 138
TODO T, ADAMS EF, FAHLBUSCH R. Inhibitory effect of trapidil on human meningioma cell proliferation via interruption of autocrine growth stimulation, 463
TOMSICK T. *See* Broderick JP, 188
TORNER JC. *See* Haley EC Jr, 537, 548
TOWNSEND JJ. *See* Eyre HJ, 909
TRAYSTMAN RJ. *See* Diringer MN, 915
TSAI FY. *See* Higashida RT, 192
TSAI MD, CHANG CN, HO YS, WANG ADJ. Cerebral sparganosis diagnosed and treated with stereotactic techniques. Report of two cases, 129
TSUBOKAWA T, KATAYAMA Y, YAMAMOTO T, HIRAYAMA T, KOYAMA S. Chronic motor cortex stimulation in patients with thalamic pain, 393
TSUCHIDA A. *See* Handa Y, 112
TSUGANE R. *See* Shimoda M, 423
TULIPAN N. Distal catheter lengthening. Letters, 853
TULLEKEN CAF, VERDAASDONK RM, BERENDSEN W, MALI WPTM. Use of the excimer laser in high-flow bypass surgery of the brain, 477

VAGNOZZI R. *See* Brunori A, 515
VAID YN. *See* Ledoux MS, 821
VARIAKOJIS D. *See* Herman MD, 997
VERDAASDONK RM. *See* Tulleken CAF, 477
VERTOSICK FT JR. Neurogenic hypertension. Letters, 310
VIGLIANI MC. *See* Schiffer D, 587
VIÑUELA F. *See* Chaloupka JC, 850, 1006
———. *See* Lylyk P, 438
VON HOLST H. *See* Mathiesen T, 562, 748

WADA E, YONENOBU K, EBARA S, KUWAHARA O, ONO K. Epidural migration of hemostatic agents as a cause of postthoracotomy paraplegia. Report of two cases, 658
WALTER GF. *See* Naraghi R, 310
WALTER J. *See* Schöning M, 776
WANG ADJ. *See* Tsai MD, 129
WARD JD. *See* Wolf AL, 54
WARNKE PC. *See* Kreth FW, 762
WASCHER TM, SPETZLER RF, ZABRAMSKI JM. Improved transdural exposure and temporary occlusion of the petrous internal carotid artery for cavernous sinus surgery. Technical note, 834
WATTERSON J. *See* Priest JR, 158
WATTS NB. *See* Tindall GT, 205
WEBER NC. *See* Morgan MK, 176
WEBER PB. *See* Aldrich EF, 702
WEISENBERGER J. *See* Barnett GH, 510
WESTLING H. Lund University and its neurobiological traditions. Historical vignette, 682
WHISNANT JP, SACCO SE, O'FALLON WM, FODE NC, SUNDT TM JR. Referral bias in aneurysmal subarachnoid hemorrhage, 726
WHITESIDE T. *See* Linskey ME, 645
WHITTAKER CK, LUETJE CM. Preservation of hearing in acoustic neurinoma surgery. Letters, 154
WICK MR. *See* Lach B, 101
WIESE KP. *See* Redekop GJ, 413
WILBERGER J. *See* Coffey RJ, 226
WILKINS RH, RADTKE RA, BURGER PC. Spontaneous temporal encephalocele. Case report, 492
———, SABISTON DC JR. The Duke University Medical Center. Historical vignette, 301
WILSON CB, HIESHIMA G. Occlusive hyperemia: a new way to think about an old problem. Guest editorial, 165
WINDISCH A. *See* Deutinger M, 709
WOIMANT F. *See* Khayata MH, 661
WOLF A. *See* Muizelaar JP, 375
WOLF AL, LEVI L, MARMAROU A, WARD JD, MUIZELAAR PJ, CHOI S, YOUNG H, RIGAMONTI D, ROBINSON WL. Effect of THAM upon outcome in severe head injury: a randomized prospective clinical trial, 54

YACUB B. *See* Jamjoom ZAB, 297
YAMADA H. *See* Chakrabortty S, 966
YAMAGUCHI M. *See* Chakrabortty S, 966
YAMAKI T. *See* Hashimoto N, 525
YAMAMOTO K. *See* Hashimoto N, 525
YAMAMOTO T. *See* Tsubokawa T, 393
YAMASAKI T, KLEIN G, LJUNGGREN HG, KÄRRE K, MORITAKE K, PAINE JT, KIKUCHI H. Role of histocompatibility antigen gene and proto-oncogene expressions in intracerebral tumorigenicity of mouse neuroblastoma, 619
YATSUZUKA S. *See* Abe T, 970
YEH HS, TAHA JM, TOBLER WD. Implantation of intracerebral depth electrodes for monitoring seizures using the Pelorus stereotactic system guided by magnetic resonance imaging. Technical note, 138
———, TEW JM JR, GARTNER M. Seizure control after surgery on cerebral arteriovenous malformations, 12
YIM GK. *See* Mayer SA, 994
YONENOBU K. *See* Wada E, 658
YOSHIDA J. *See* Tashiro T, 252
YOSHIDA Y. *See* Chakrabortty S, 966
YOSHIMOTO T. *See* Mizoi K, 430
YOSHIMOTO Y, KIM P, SASAKI T, TAKAKURA K. Temporal profile and significance of metabolic failure and trophic changes in the canine cerebral arteries during chronic vasospasm after subarachnoid hemorrhage, 807
YOSHIOKA T. *See* Shiozaki T, 501
YOUNG B. *See* Lu WY, 979
YOUNG HF. *See* Muizelaar JP, 375
———. *See* Wolf AL, 54
YUN J. *See* Laquerriere A, 487

ZABRAMSKI JM. *See* Wascher TM, 834
ZALEWSKI AA, KADOTA Y, AZZAM NA, AZZAM RN. Observations on the blood and perineurial permeability barriers of surviving nerve allografts in immunodeficient and immunosuppressed rats, 794
ZEME S. *See* Barolat G, 233
ZENTENO M. *See* Revuelta R, 499
ZERVAS NT. *See* Hsu DW, 753
ZIMMERMAN EA. Book review, 848
ZUBER M. *See* Merlo A, 630
ZÚJAR MJ. *See* Ferrer I, 133

Subject Index

Abstracts for AANS Annual Meeting

Adler JR Jr. *Frameless stereotactic radiosurgery*, 345A

Albright AL, Zeltzer P, Wisoff J, Boyett J. *Neurosurgical treatment of children with medulloblastomas (CCG 921)*, 349A

Alexander E III, Loeffler JS. *Factors affecting local control in the radiosurgery of brain metastases*, 344A

Al-Rodhan NRF, Piepgras DG, Sundt TM Jr, Fode NC, Meyer FB, Marsh WR, Nichols DA. *Giant intracranial aneurysms: results in 408 cases and proposed management protocol*, 342A

Anson JA, Spetzler RF. *Characteristics and treatment of dolichoectatic aneurysms*, 347A

Arbit E, Wronski M, Galicich JH, Burt MJ. *Brain metastases from nonsmall-cell lung cancer: results of surgical resection in 190 patients*, 352A

Barker FG. *Treatment of open brain wounds in America, 1810–1880: a survey*, 364A

Benzel EC, Hart BL, Ball PA, Orrison WW, Espinoza M. *The definition by MR imaging of soft-tissue injury associated with acute cervical spine trauma*, 355A

Berenstein A, Choi IS, Setton A, Kupersmith M, Jafar J. *Endovascular treatment of cerebral aneurysms using the Guglielmi detachable coil: the NYU experience*, 355A

Bergman WC, Dagi TF. *Personal experiences influencing Dr. Cushing's philosophy on the management of head injury*, 364A

Black PM, Shady JA, Kupsky W, Holmes G, Scott RM, Tarbell N. *Seizures in children with supratentorial astroglial tumors*, 359A

Blatt DR, Friedman WA, Bova FJ, Theele DP, Mickle JP. *Temporal characteristics of radiosurgical lesions in an animal model*, 357A

Bojanowski MW, Pare M. *Aneurysm surgery between the 4th and 10th day after SAH*, 367A

Bowles AP Jr. *Use of monoclonal antibodies to transforming growth factorα as an immunoconjugate for tumor targeting*, 372A

Bricolo AB, Turazzi S, Cristofori L, Talacchi A, Berlucchi S. *Surgical treatment of brain-stem tumors: Experience in 75 patients*, 353A

Bruce DA, Munro TR. *Surgical approaches to the cranial base in children*, 353A

Bucholz RD, Rubins JP. *The accuracy of stereotactic localization using MR imaging*, 360A

Bucholz RD, Trobaugh J, Richard WD. *Three-dimensional intraoperative ultrasonography using an operative digitizer*, 361A

Canale DJ. *Sir William MacEwan and the treatment of brain abscesses, revisited after 100 years*, 354A

Carmel PW. *Radical removal of craniopharyngioma: 1971–1991*, 351A

Cerullo LJ, Grutsch JF, Osterdock R. *Growth of recurrent vestibular schwannomas in patients in whom the preservation of cranial nerve function is routine*, 349A

Ciricillo SF, Cogen PH, Edwards MSB. *Cryptic vascular malformations in children: presentation, radiology, treatment, and outcome in 36 consecutive patients*, 354A

Clifton GL, Allen S, Plenger PM, Berry J, Koch SM. *A Phase II study of systemic hypothermia in severe brain injury*, 347A

Collins JJ, Kromer L, Messersmith D. *Schwann cell transplants within polymer channels facilitate directional regeneration of traumatized septal cholinergic axons in the adult mammalian brain*, 370A

Abstracts for AANS Annual Meeting *(continued)*

Comair YG, So N, Rusyniak G, Ng T, Xue M. *Localization of seizure foci using proton chemical shift imaging*, 347A

Constantini S, Decrescito V, Young W. *GM1 antagonizes the beneficial effects of methylprednisolone in experimental spinal cord injury*, 371A

Cuffe MJ, Herrera GA, Hadley MN, Morawetz RB. *Destructive dialysis spondylarthropathy: report of nine cases*, 345A

Dagi TF, Bergman WC. *The historical significance of the* Manual of Neurosurgery *of 1919 in the evolution of the modern neurosurgical text*, 364A

Diaz FG, Velardo B. *Complex middle cerebral artery aneurysms*, 356A

Dietz DD Jr, Fessler RG, Jacob RP. *Primary reconstruction for spinal infections*, 362A

Dirks BA, Follett KA. *Characterization of the responses of primary somatosensory and ventrolateral orbital cortex neurons to noxious visceral stimulation*, 367A

Dogali M, Fazzini E, Kolodny E, Perrine K, Gianutsos J. *Experience with stereotactic ventral pallidotomy (VP) in Parkinson's disease*, 361A

During MJ, Fried I, Spencer D. *Intracerebral microdialysis in the human hippocampus: on-line measurement of lactate during spontaneous seizures*, 361A

El-Naggar A, Nashold BS Jr, Nashold JRB. *Intractable facial pain treated with new DREZ electrodes*, 368A

Errico TJ, Cooper PR, Main K, Dibartolo T. *The results of anterior Kostuik-Harrington instrumentation in 64 stabilization procedures*, 356A

Fehlings MG, Cooper PR, Errico TJ, DiBartolo T. *Long-term results of posterior cervical plating for stabilization of the cervical spine*, 350A

Feindel WH, Preul MC. *As the twig is bent: the influence of Osler, Sherrington, Cushing, Cajal, and Foerster as teachers and heroes of Wilder Penfield*, 365A

Feindel WH, Rasmussen T, Leonard G. *Comparison of radical resection of amygdala or hippocampus in temporal lobectomy for seizures: follow-up study (2–20 years) in 200 cases with psychological ratings*, 342A

Filler AG, Howe FA, Golden RN, Tsuruda J, Winn HR. *Magnetic resonance neurography for diagnosis of nerve compression*, 368A

Flamm ES. *Early illustrations of transaxial neuroanatomy*, 363A

Foley K, Fugote D. *Coracoid osteotomy for exposure of the distal brachial plexus*, 362A

Francel PC, Larner JM, Phillips CD, Jane JA. *Superselective intra-arterial chemotherapy for high-grade gliomas*, 371A

Fullagar T, Wyler AR. *Use of prophylactic antibiotics with long-term subdural electrodes*, 360A

Gallen CC, Wilson CB, Waltz TA, Copeland B, Sobel DF, Schwartz BJ, Hirschkoff EC. *Operative verification of noninvasive neuromagnetic mapping of the human sensory cortex and central sulcus*, 361A

Gaskill SJ. *The history of hydrocephalus*, 365A

Gaskill SJ. *Radiation exposure in patients with myelomeningocele*, 358A

Gentili F, Liao S, Jhawar B. *Functional outcome in patients*

Abstracts for AANS Annual Meeting *(continued)*
with congenital hydrocephalus, 354A
Giller CA, Mathews D, Walker B, Purdy PD, Roseland A. *Prediction of tolerance to carotid artery occlusion using transcranial Doppler ultrasound*, 366A
Golfinos JG, Shetter AG. *Treatment of trigeminal neuralgia in multiple sclerosis patients using radiofrequency thermal rhizotomy and glycerol rhizotomy*, 367A
Goodrich JT. *Phrenology: harmless quackery or a contribution to cerebral localization?* 363A
Goumnerova LC, Sathi S, Scott RM, Madsen JR. *Treatment of medulloblastoma with preirradiation chemotherapy: experience at Boston Children's Hospital from 1984 to 1991*, 358A
Grossman RG, Rettig GM. *Neuropathology and prediction of seizure control and intellectual outcome in anterior temporal lobectomy for complex partial seizures*, 353A
Guthkelch AN, Dzioba R, Temeltas O. *Somatosensory evoked potential monitoring in extradural spine surgery*, 362A
Haglund MM, Berger MS, Shamseldin M, Ojemann GA. *Cortical organization of language in patients with temporal lobe gliomas*, 372A
Han DH, Lee SH, Lee SH. *Effect of nimodipine treatment on outcome in surgical cases of aneurysmal SAH*, 346A
Harvey CF, Dias MS, McLone DG. *Spinal lipomas: a 20-year prospective study*, 348A
Hassenbusch SJ, Mekhail N, Stanton-Hicks M, Walsh J. *Peripheral nerve stimulation for reflex sympathetic dystrophy: clinical results and animal model evaluation*, 368A
Hatton J, Rapp, RP, McClain CJ, Tibbs P, Young B. *Positive nitrogen balance in moderate to severe closed head injury following administration of insulin-like growth factor-1*, 370A
Hida K, Iwasaki Y, Imamura H, Abe H. *Surgical indication for and results of foramen magnum decompression versus syringosubarachnoid shunt for syringomyelia associated with Chiari malformation*, 351A
Hill NC. *A comprehensive program for the brain-injured: the neurosurgeon's role*, 371A
Hoffman TL, Jenkins CM, Selman WR, Whittingham TS, Lust WD. *Inhibitors of nitric oxide synthase prevent the post-ischemic increase in cGMP* in vivo *and* in vitro, 366A
Hosobuchi Y, Yingling C. *Treatment of prolonged coma with deep-brain stimulation*, 369A
Ikezaki K, Matsushima T, Suzuki SO, Fukui M. *Surgical treatment for pediatric patients with moyamoya disease by indirect revascularization procedures*, 359A
Johnson J, Chrousos G, Nieman LK, Doppman JL, Cutler GB Jr, Oldfield EH. *Transsphenoidal microsurgery for Cushing's disease in childhood*, 372A
Kao M-C, Hsiao Y-Y, Lee Y-S, Tsai J-C. *The adequate extent of sympathectomy for palmar hyperhidrosis*, 356A
Khayata M, Dean B, Flom RA, Zabramski J, Spetzler RF. *Efficacy of endovascular treatment of meningiomas: a controlled study*, 346A
Kim DH, Kline DG. *Operative management of peripheral nerve injuries to the lower extremity*, 343A
Knego RS, Day AL, Masson RL Jr. *Aneurysms of the clinoidal segment*, 357A
Koos W. *Management of meningiomas of the foramen magnum and the lower clivus*, 344A
Kotapka MJ, Gennarelli TA, Graham DI, Adams JH. *Hippocampal pathology in fatal human head injury without raised intracranial pressure*, 370A
Lang FF, Koslow M, Miller DC, Newcomb EW. *Tumor progression in human glioma: a molecular analysis of 78 astrocytomas of different grades*, 371A
Lena G, Achouri M, Genitori L, Choux M. *Middle fossa arachnoid cysts in children: review of 63 cases*, 352A
LeRoux PD, Reh TA. *Cortical neuron dendrogenesis mediation by a factor associated with astrocytes*, 360A
Levy M, McComb JG. *Penetrating craniocerebral injuries in*

Abstracts for AANS Annual Meeting *(continued)*
children and adolescents: analysis and correlation with gang activity, 354A
Levy RM, Leiphart J, Kim D, Zekiel O, Dills C. *Comparison of intrathecal narcotic versus non-narcotic analgesics in experimental chronic neuropathic pain*, 369A
Li V, Albright AL, Pang D. *The role of somatosensory evoked potentials in the timing of tethered cord release*, 358A
Lilly MA, Levin HS, Fletcher JM, Ewing-Cobbs L, Eisenberg HM. *Long-term recovery of memory following pediatric head injury*, 359A
Lunsford LD, Kondziolka DS, Flickinger JC. *Current radiosurgical strategies for brain AVM's*, 366A
Madsen JR, Scott RM, Goumnerova LC, Wolinsky JS, Logigian EL. *The latency test: distinguishing valid reflexes in dorsal rhizotomy surgery*, 360A
Marion D, Obrist WD, Penrod LE, Carlier PM, Darby JM. *Treatment of cerebral ischemia improves outcome following severe traumatic brain injury*, 347A
Marks MP, Steinberg GK, Norbash A, Lane B. *Vascular characteristics predictive of hemorrhage in cerebral AVM's*, 346A
Mathis JM, Horton JA, Vincent D, Dawson RC, Lunsford LD. *The efficacy of particulate embolization and stereotactic radiosurgery for large AVM's of the brain*, 351A
Meyer B, Rohde V, Schaller K, Hassler W. *The role of C-reactive protein for early detection of postoperative infections in lumbar disc surgery*, 362A
Myers DL, Davne SH, Battle FJ, Mandel S. *Re-exploration of pedicle screw-instrumented lumbar spinal fusion*, 348A
Noren G, Mosskin M, Kirsch A, Lax I. *Long-term follow-up results after gamma knife radiosurgery of acoustic neuromas*, 350A
North RB, LaRocca R, Lee M, Long DM. *Repeat operation on the lumbosacral spine: long-term third-party follow-up results*, 363A
Ogilvy CS, Rich C, Crowell RM. *Mild hypothermia, mannitol, and induced hypertension for cerebral protection during temporary vessel occlusion in aneurysm surgery is safe and effective*, 367A
Ojemann LM, Ojemann GA, Dodrill C. *Five-year outcome with respect to seizure control following cortical resection in temporal lobe epilepsy*, 353A
Pait TG, Kaufman HH, Laws ER Jr, Bloomfield S, Ubelaker DH. *Craniometry: precursor to stereotactic surgery*, 364A
Pait TG, Wiltse LL, Kaufman HH, Imana RB, McAllister PV, Haid RW Jr. *The history of instrumentation (internal fixation) of the lumbar spine*, 365A
Petronio J, Walker ML, Wright LC. *Ventriculoscopic fenestration of loculated arachnoid cysts and unilateral hydrocephalus in children*, 352A
Ross DA, Henry TR, Gilman S, Frey KA, Kuhl DE, Sackellares JC, Buchtel HA, Koeppe RA, Brunberg JA, Berent S. *Correlation of anterior mesial temporal benzodiazepine receptor decrease on [^{11}C]flumazenil PET and multimodal localization of epileptogenesis in refractory complex partial seizures*, 361A
Sanford RA, Khatib Z, Heideman R, Kovnar E, Kirk EA. *Pilocytic dorsally exophytic brain-stem gliomas: a distinct clinicopathological entity*, 343A
Sathi S, Altobelli D, Mulliken J, Stieg PE. *Surgical planning for craniofacial procedures using three-dimensional reconstructions*, 359A
Sawaya R, Bindal R, Leavens ME. *Surgical treatment of multiple brain metastases*, 345A
Schneider SJ, Estrada CR, Rosenthal AD. *Holocord syringomyelia following myelomeningocele repair*, 363A
Schroder ML, Muizelaar JP, Fatouros PP, Choi SC. *Regional ischemia after severe head injury in man*, 369A
Shigemori M, Tokutomi T, Kikuchi T. *Is diffuse axonal injury a clinical entity?*, 370A
Sisti MB, Kader A, Stein BM. *Comparison between microsur-*

Index

Abstracts for AANS Annual Meeting *(continued)*
gery and radiosurgery in the treatment of small AVM's, 342A
Smith FP. *Archival correspondence regarding the origin of the Harvey Cushing Society (American Association of Neurological Surgeons)*, 358A
Steinberg GK, Panihian N, Sun GH, Maier C, Kunis D. *Interrupted, repeated arterial occlusion causes less cerebral ischemic damage than non-interrupted transient occlusion in an experimental model*, 366A
Stevenaert A, Beckers A. *Presurgical treatment with octreotide in acromegaly*, 352A
Sundaresan N, Sachdev V, Levine M. *Simultaneous combined anteroposterior approach for tumors of the spine*, 348A
Tibbs PA, Young AB. *Atlantoaxial lateral mass osteoarthritis: diagnosis and neurosurgical management*, 345A
Tippets RH, Apfelbaum RI. *Technical and clinical complications with Caspar plating*, 350A
Tomlinson FH, Rufenacht DA, Sundt TM Jr, Nichols DA, Fode NC. *Arteriovenous fistulae of arteries of the brain and the spinal cord*, 357A
Vise WM. *A metabolic approach to the management of neurological trauma: hypothermic hypokalemic coma*, 346A
Warnick RE, Prados MD. *Adult medulloblastoma: a review of 47 patients treated in the CT era*, 349A
Weiner HL, Miller DC, Rosenberg ME, Zagzag D, Wisoff JH, Kupersmith M, Epstein FJ. *Clinicopathological analysis of 56 patients with craniopharyngioma: factors predictive of recurrence and functional outcome*, 349A
Wilberger JE, Duh M-S, Bracken M. *Surgical treatment of spinal cord injury—The NASCIS II experience*, 342A
Wisoff JH, Boyett J, Brandt K, Finlay JL, Berger MS. *Neurosurgical management and influence of extent of resection on survival in pediatric high-grade astrocytomas: a report on CCG 945*, 344A
Yamada S, Peterson G, Morgese VJ, Curtis BV. *Results of coaptation procedures for cervical root avulsion*, 356A
Yamaura A. *Natural history of nontraumatic intracranial dissecting aneurysms*, 355A
Yazbak P, McComb JG, Raffel C. *Traumatic aneurysms in childhood*, 357A
Young RF, Rinaldi P, Chodakiewitz J, Melander G, Cojocaru T. *Brain stimulation for treatment of chronic pain: Fifteen years' experience*, 351A
Yu JS, Martuza RL, Tepper RI. *Treatment of human glioma by engineered interleukin-4-secreting cells*, 373A
Zeidman SM, Ducker TB. *Selection of operative approach in the treatment of cervical spondylotic myelopathy: report of 300 cases*, 343A

Acoustic nerve tumor
Preservation of hearing in surgery for acoustic neuromas, 864

Acoustic neurinoma
Preservation of hearing in acoustic neurinoma surgery. Letters, 154
The radiobiology of human acoustic schwannoma xenografts after stereotactic radiosurgery evaluated in the subrenal capsule of athymic mice, 645

Acromegaly
Transsphenoidal adenomectomy for growth hormone-secreting pituitary adenomas in acromegaly: outcome analysis and determinants of failure, 205

Adenoma
Significance of proliferating cell nuclear antigen index in predicting pituitary adenoma recurrence, 753

Adenosine triphosphate
Temporal profile and significance of metabolic failure and trophic changes in the canine cerebral arteries during chronic vasospasm after subarachnoid hemorrhage, 807

American Association of Neurological Surgeons
Abstracts for AANS Annual Meeting, 342A
Scientific program: Annual Meeting of the American Association of Neurological Surgeons, April 24–29, 1993, 317

Amino acid
Cardiovascular responses to global cerebral ischemia: role of excitatory amino acids in the ventrolateral medullary pressor area, 922

Anastomosis, nerve
Facial reanimation. Letters, 524
Observations on the blood and perineurial permeability barriers of surviving nerve allografts in immunodeficient and immunosuppressed rats, 794
Spinal accessory-facial nerve anastomosis. Letters, 312

Anastomosis, vascular
Contralateral external carotid-to-middle cerebral artery graft using the saphenous vein. Case report, 290
Superficial temporal artery interposition graft after resection of bilateral anterior cerebral arteries. Case report, 983
Use of the excimer laser in high-flow bypass surgery of the brain, 477

Anatomical study
Anomalies of the A_1 segment. Letter, 313
Drilling the posterior wall of the petrous pyramid: a microneurosurgical anatomical study, 452
Improved transdural exposure and temporary occlusion of the petrous internal carotid artery for cavernous sinus surgery. Technical note, 834

Aneurysm, *see also* various types
Direct thrombosis of aneurysms. Letters, 1006
Pulsatile increases in aneurysm size determined by cine phase-contrast MR angiography, 879
Transcallosal interforniceal approach for a posteriorly projecting high basilar bifurcation aneurysm Case report, 970
Which cavernous sinus aneurysms should be treated? Letters, 1008

Aneurysm, giant
Giant serpentine middle cerebral artery aneurysm treated by extracranial-intracranial bypass. Case report, 974

Aneurysm, mycotic
Selective endovascular techniques in the treatment of cerebral mycotic aneurysms. Report of three cases, 661

Angiogenesis
Inhibition of angiogenesis and growth of human nerve-sheath tumors by AGM-1470, 470

Angiography
Pulsatile increases in aneurysm size determined by cine phase-contrast MR angiography, 879

Angiolipoma
Spinal angiolipomas. Report of three cases, 280

Angioma
Encapsulated intracerebral hematomas: a defined entity. Case report, 829
Radiosurgery for venous angiomas, 531

Angioplasty
Histological studies of intracranial vessels in primates following transluminal angioplasty for vasospasm, 481
Transluminal angioplasty for atherosclerotic disease of the vertebral and basilar arteries, 192

Ankylosing spondylitis
Neurological complications of ankylosing spondylitis, 871

Anterior cerebral artery
Anomalies of the A_1 segment. Letter, 313
Comparative study of transcranial color duplex sonography and transcranial Doppler sonography in adults, 776
Superficial temporal artery interposition graft after resection of bilateral anterior cerebral arteries. Case report, 983

Antibiotic therapy
Epileptogenic effect of antibiotic drugs, 938

Arachnoid villi
Antonio Pacchioni (1665–1726): early studies of the dura mater, 515

Arteriovenous fistula
External carotid artery fistula due to microcompression of the gasserian ganglion for relief of trigeminal neuralgia. Case report, 499

Arteriovenous malformation
Complications of surgery for arteriovenous malformations of the brain, 176
Conventional radiation therapy of intracranial arteriovenous malformations: long-term results, 413
The effect of embolization with N-butyl cyanoacrylate prior to surgical resection of cerebral arteriovenous malformations, 60
Encapsulated intracerebral hematomas: a defined entity. Case report, 829
Occlusive hyperemia: a new way to think about an old problem, 165
Occlusive hyperemia: a theory for the hemodynamic complications following resection of intracerebral arteriovenous malformations, 167
Perfusion pressure and risk of AVM hemorrhage. Letters, 156, 850
Seizure control after surgery on cerebral arteriovenous malformations, 12
Seizure outcome in patients with surgically treated cerebral arteriovenous malformations, 5
Surgical resection of intramedullary spinal cord cavernous malformations, 446
Artery, *see* specific artery
Aspiration
High recurrence rate following aspiration of colloid cysts in the third ventricle, 748
Astrocytoma
A brain-tumor model utilizing stereotactic implantation of a permanent cannula, 959
Human specific c-*neu* proto-oncogene protein overexpression in human malignant astrocytomas before and after xenografting, 240
The long-term outcome after surgical treatment of dorsally exophytic brain-stem gliomas, 859
Atherosclerosis
Transluminal angioplasty for atherosclerotic disease of the vertebral and basilar arteries, 192
Autocrine system
Inhibitory effect of trapidil on human meningioma cell proliferation via interruption of autocrine growth stimulation, 463
Axonal regeneration
Observations on the blood and perineurial permeability barriers of surviving nerve allografts in immunodeficient and immunosuppressed rats, 794

Baclofen
Intrathecal baclofen for intractable spasticity of spinal origin: results of a long-term multicenter study, 226
Basilar circulation
Transcallosal interforniceal approach for a posteriorly projecting high basilar bifurcation aneurysm. Case report, 970
Biopsy
Biopsy-proven isolated sarcoid meningitis. Case report, 994
Surgical resection and radiation therapy versus biopsy and radiation therapy in the treatment of glioblastoma multiforme, 762
Systemic T-cell lymphoma presenting with isolated neurological dysfunction and intraparenchymal brain lesions. Case report, 997
Transnasal stereotactic biopsy, 524
Blood-brain barrier
Contributions of ions and albumin to the formation and resolution of ischemic brain edema, 257
Bone disorder
Sclerosteosis: neurosurgical experience with 14 cases, 388
Book reviews
Arieff AI, Griggs RC (eds). *Metabolic brain dysfunction in systemic disorders, ed 1*, 848
Arnold DM, Lonstein JE (eds). *Pedicle fixation of the lumbar spine. Spine: state of the art reviews, vol 6, no. 1*, 306
Awad IA (ed). *Cerebrovascular occlusive disease and brain ischemia. Neurosurgical topics*, 879
Barkovich AJ, Dillon WP, Vogl TJ (eds). *Current opinion in radiology. Neuroradiology and radiology of the head and neck: 1992*, 307
Barrow DL (ed). *Complications and sequelae of head injury*, 151
Black PM (ed). *The surgical art of Harvey Cushing*, 308
Camins MB, O'Leary PF (eds). *Disorders of the cervical spine*, 520
Campion FX. *Grand rounds on medical malpractice*, 152
Chauvel P, Delgado-Escueta AV, Halgren E, Bancaud J (eds). *Advances in neurology, Vol 57: Frontal lobe seizures and epilepsies*, 152, 1011
Crockard A, Hayward R, Hoff JT (eds). *Neurosurgery. The scientific basis of clinical practices, ed 2, Vols 1 and 2*, 859
Donaldson JA, Druckert LG, Lambert PM, Rubel EW (eds). *Surgical anatomy of the temporal bone, ed 4*, 846
Dufresne CR, Carson BS, Zinreich SJ (eds). *Complex craniofacial problems*, 864
Duvernoy H. *The human brain. Surface, three-dimensional sectional anatomy and MRI*, 520
Faglia G, Beck-Peccoz P, Ambrosi B, Travaglini P, Spada A (eds). *Pituitary adenomas. New trends in basic and clinical research*, 519
Fenichel GM. *Clinical pediatric neurology—a signs and symptoms approach, ed 2*, 848
Goldstein PJ, Stern BJ (eds). *Neurological disorders of pregnancy, ed 2*, 685
Holt R (ed). *Management of spinal deformities. Spine: State of the art reviews. Vol 6, No. 2*, 884
Johnson KB, Hatlie MJ, Johnson ID. *The guide to medical professional liability insurance*, 152
Kelly PJ. *Tumor stereotaxis*, 305
Levin HS, Eisenberg HM, Benton AL (eds). *Frontal lobe function and dysfunction*, 306
Long DM (ed). *Surgery for skull-base tumors, Contemporary issues in neurological surgery*, 871
Saunders RL, Bernini PM (eds). *Cervical spondylotic myelopathy. Contemporary issues in neurological surgery*, 521
Sekhar LN, Janecka IP (eds). *Surgery of cranial base tumors*, 847
Spoor TC. *An atlas of optic nerve disorders*, 307
Teasdale GM, Miller JD (eds). *Current neurosurgery*, 685
Viñuela F, Halbach VV, Dion JE (eds). *Interventional neuroradiology, endovascular therapy of the central nervous system*, 150
Wilkins RH (ed). *Neurosurgical classics*, 309
Wilson CB (ed). *Neurosurgical procedures: Personal approaches to classic operations*, 848
Brain injury, *see also* Head injury
Hyperbaric oxygen for brain injury. Letters, 687
Brain neoplasm, *see also* specific neoplasm
A brain-tumor model utilizing stereotactic implantation of a permanent cannula, 959
Radiosurgical treatment of recurrent hemangiopericytomas of the meninges: preliminary results, 903
Systemic T-cell lymphoma presenting with isolated neurological dysfunction and intraparenchymal brain lesions. Case report, 997
Brain stem
A study of safe entry zones via the floor of the fourth ventricle for brain-stem lesions. Report of three cases, 987
Brain-stem auditory evoked response
Preservation of hearing in surgery for acoustic neuromas, 864
Brain-stem neoplasm
Brain-stem glioma growth patterns, 408
The long-term outcome after surgical treatment of dorsally exophytic brain-stem gliomas, 859
The plated bayonet: a new instrument to facilitate surgery for

intra-axial neoplasms of the spinal cord and brain stem. Technical note, 505
Bucy, Paul C.
Paul C. Bucy, M.D., 1904–1992, 693
Bupivacaine
The perioperative use of corticosteroids and bupivacaine in the management of lumbar disc disease, 383
Burr hole
Subdural empyema: burr holes or craniotomy? A retrospective computerized tomography-era analysis of treatment in 90 cases, 574

Calbindin
Parvalbumin and calbindin D-28K immunoreactivity in central gangliоglioma and dysplastic gangliocytoma of the cerebellum. Report of two cases, 133
Calculus
Acute obstructive hydrocephalus caused by a migrating intraventricular calculus. Case report, 826
Capillary
Neuronal heterotopia with capillary penetration of neurons and cortical dysplasia in a patient with complex partial seizures. Case report, 654
Capsaicin
Effect of neonatal capsaicin treatment on neurogenic pulmonary edema from fluid-percussion brain injury in the adult rat, 610
Catecholamine
Transient and repetitive rises in blood pressure synchronized with plasma catecholamine increases after head injury. Report of two cases, 501
Cavernous angioma
Encapsulated intracerebral hematomas: a defined entity. Case report, 829
Surgical resection of intramedullary spinal cord cavernous malformations, 446
Cavernous sinus
Which cavernous sinus aneurysms should be treated? Letters, 1008
Cell growth
Effect of recombinant tumor necrosis factor-α on three-dimensional growth, morphology, and invasiveness of human glioblastoma cells *in vitro*, 952
Cell migration
Human specific c-*neu* proto-oncogene protein overexpression in human malignant astrocytomas before and after xenografting, 240
Cellulose acetate polymer
Direct thrombosis of aneurysms. Letters, 1006
Central nervous system tumor
T-cell receptor V-gene usage in neoplasms of the central nervous system. A comparative analysis in cultured tumor infiltrating and peripheral blood T cells, 630
Cerebellopontine angle
Posterior fossa craniotomy for lesions of the cerebellopontine angle. Technical note, 508
Repair of facial nerve after removal of cerebellopontine angle tumors: a comparative study, 720
Cerebral blood flow
Altered cerebrovascular CO_2 reactivity following subarachnoid hemorrhage in cats, 915
Cerebral palsy
Hemispherectomy for intractable seizures: long-term results in 17 patients followed for up to 38 years, 733
Cerebral perfusion pressure
Complications of surgery for arteriovenous malformations of the brain, 176
Perfusion pressure and risk of AVM hemorrhage. Letters, 156, 850
Cerebrospinal fluid
Increased interleukin-6 levels in cerebrospinal fluid following subarachnoid hemorrhage, 562
Noncommunicating syringomyelia following occlusion of central canal in rats. Experimental model and histological findings, 274
Cerebrovascular reactivity
Altered cerebrovascular CO_2 reactivity following subarachnoid hemorrhage in cats, 915
Cervical spine
Halifax interlaminar clamp for posterior cervical fusion: a long-term follow-up review, 702
Chemotherapy
Gliomatosis cerebri following radiation and chemotherapy. Letter, 158
A randomized trial of radiotherapy versus radiotherapy plus CCNU for incompletely resected low-grade gliomas: a Southwest Oncology Group study, 909
Children
Childhood meningioma associated with meningioangiomatosis. Case report, 287
Lumbosacral neurenteric cyst in an infant. Case report, 821
Multiloculated hydrocephalus: craniotomy and fenestration of intraventricular septations, 70
Chordoma
Intracranial chordomas: a clinicopathological and prognostic study of 51 cases, 741
Choroid plexus
Colloid cyst of the third ventricle. A comparative immunohistochemical study of neuraxis cysts and choroid plexus epithelium, 101
Clamp
Halifax interlaminar clamp for posterior cervical fusion: a long-term follow-up review, 702
Clivus
The mandibular swing-transcervical approach to the skull base: anatomical study. Technical note, 673
Coagulopathy
Bovine thrombin-induced inhibitor of factor V and bleeding risk in postoperative neurosurgical patients. Report of three cases, 817
Collagen
Experimental evaluation of bilayered human collagen as a dural substitute, 487
Cortex
Chronic motor cortex stimulation in patients with thalamic pain, 393
Epileptogenic effect of antibiotic drugs, 938
The myth of eloquent cortex, or what is non-eloquent cortex? Letters, 1009
Optical imaging of bipolar cortical stimulation, 785
Cortical mapping
Optical imaging of bipolar cortical stimulation, 785
Corticosteroid therapy
The perioperative use of corticosteroids and bupivacaine in the management of lumbar disc disease, 383
Cranial decompression
Sclerosteosis: neurosurgical experience with 14 cases, 388
Craniosynostosis
Total calvarial reconstruction for sagittal synostosis in older infants and children, 199
Craniotomy
Posterior fossa craniotomy for lesions of the cerebellopontine angle. Technical note, 508
Creatine phosphate
Temporal profile and significance of metabolic failure and trophic changes in the canine cerebral arteries during chronic vasospasm after subarachnoid hemorrhage, 807
Cushing, Harvey
Herbert Olivecrona: founder of Swedish neurosurgery, 142
Cyclosporin A
Observations on the blood and perineurial permeability barriers

of surviving nerve allografts in immunodeficient and immunosuppressed rats, 794
Cyst, *see* specific types
Cyst, colloid
Colloid cyst of the third ventricle. A comparative immunohistochemical study of neuraxis cysts and choroid plexus epithelium, 101
High recurrence rate following aspiration of colloid cysts in the third ventricle, 748
Cyst, dermoid
Intraventricular fat from a ruptured sacral dermoid cyst: clinical, radiographic, and pathological correlation. Case report, 666
Cyst, meningeal
Intraspinal extradural meningeal cyst demonstrating ball-valve mechanism of formation. Case report, 122
Cyst, neurenteric
Lumbosacral neurenteric cyst in an infant. Case report, 821
Cyst, spinal
Intraspinal extradural meningeal cyst demonstrating ball-valve mechanism of formation. Case report, 122
Cysticercus
Differentiating solitary small cysticercus granulomas and tuberculomas in patients with epilepsy. Clinical and computerized tomographic criteria, 402

Deafferentation syndrome
The expression of deafferentation dysesthesias reduced by dorsal root entry zone lesions in the rat, 598
Delayed ischemic deficit
Increased interleukin-6 levels in cerebrospinal fluid following subarachnoid hemorrhage, 562
Intracranial complications of hypervolemic therapy in patients with a delayed ischemic deficit attributed to vasospasm, 423
Density spectral array
Computer-derived density spectral array in detection of mild analog electroencephalographic ischemic pattern changes during carotid endarterectomy, 884
Discectomy
Percutaneous endoscopic discectomy: surgical technique and preliminary results compared to microsurgical discectomy, 216
Dopamine
Metabolism in the globus pallidus after fetal implants in rats with nigral lesions, 83
Dorsal root entry zone
The expression of deafferentation dysesthesias reduced by dorsal root entry zone lesions in the rat, 598
Duke University Medical Center
The Duke University Medical Center, 301
Dural substitute
Experimental evaluation of bilayered human collagen as a dural substitute, 487
Dura mater
Antonio Pacchioni (1665–1726): early studies of the dura mater, 515

Ectasia
Compression of the C-2 root by a rare anomalous ectatic vertebral artery. Case report, 669
Editorial comment
Occlusive hyperemia: a new way to think about an old problem, 165
Electrical stimulation
Chronic motor cortex stimulation in patients with thalamic pain, 393
Mapping of sensory responses to epidural stimulation of the intraspinal neural structures in man, 233
Optical imaging of bipolar cortical stimulation, 785
Vagus nerve stimulation for complex partial seizures: surgical technique, safety, and efficacy, 26
Electrocorticography
Intraoperative electrocorticography during tumor resection: impact on seizure outcome in patients with gangliogliomas, 891
Electroencephalography
Computer-derived density spectral array in detection of mild analog electroencephalographic ischemic pattern changes during carotid endarterectomy, 884
Embolization
The effect of embolization with N-butyl cyanoacrylate prior to surgical resection of cerebral arteriovenous malformations, 60
Selective endovascular techniques in the treatment of cerebral mycotic aneurysms. Report of three cases, 661
Therapeutic alternatives for vein of Galen vascular malformations, 438
Encephalocele
Spontaneous temporal encephalocele. Case report, 492
Endarterectomy
Computer-derived density spectral array in detection of mild analog electroencephalographic ischemic pattern changes during carotid endarterectomy, 884
Endoscopy
Percutaneous endoscopic discectomy: surgical technique and preliminary results compared to microsurgical discectomy, 216
Endovascular therapy
The effect of embolization with N-butyl cyanoacrylate prior to surgical resection of cerebral arteriovenous malformations, 60
Selective endovascular techniques in the treatment of cerebral mycotic aneurysms. Report of three cases, 661
Epidemiological study
Intracerebral hemorrhage more than twice as common as subarachnoid hemorrhage, 188
Epilepsy, *see* Seizure
Erratum
Omission of book reviewer: correction, 1011
Excitotoxicity
Local protective effects of nerve growth factor-secreting fibroblasts against excitotoxic lesions in the rat striatum, 267
External carotid artery
External carotid artery fistula due to microcompression of the gasserian ganglion for relief of trigeminal neuralgia. Case report, 499
Extracranial-intracranial bypass
Contralateral external carotid-to-middle cerebral artery graft using the saphenous vein. Case report, 290
Giant serpentine middle cerebral artery aneurysm treated by extracranial-intracranial bypass. Case report, 974
Use of the excimer laser in high-flow bypass surgery of the brain, 477

Facial nerve
Facial reanimation. Letters, 524
Repair of facial nerve after removal of cerebellopontine angle tumors: a comparative study, 720
Spinal accessory-facial nerve anastomosis. Letters, 312
Factor V
Bovine thrombin-induced inhibitor of factor V and bleeding risk in postoperative neurosurgical patients. Report of three cases, 817
Fat
Intraventricular fat from a ruptured sacral dermoid cyst: clinical, radiographic, and pathological correlation. Case report, 666
Fenestration
Multiloculated hydrocephalus: craniotomy and fenestration of intraventricular septations, 70

Index

Fibrinolysis
Prospective study on the prevention of cerebral vasospasm by intrathecal fibrinolytic therapy with tissue-type plasminogen activator, 430
Fourth ventricle
The long-term outcome after surgical treatment of dorsally exophytic brain-stem gliomas, 859
A study of safe entry zones via the floor of the fourth ventricle for brain-stem lesions. Report of three cases, 987

Gamma knife
Preservation of hearing in acoustic neurinoma surgery. Letters, 154
Radiosurgery for venous angiomas, 531
Gangliocytoma
Parvalbumin and calbindin D-28K immunoreactivity in central ganglioglioma and dysplastic gangliocytoma of the cerebellum. Report of two cases, 133
Ganglioglioma
Intraoperative electrocorticography during tumor resection: impact on seizure outcome in patients with gangliogliomas, 891
Optic nerve ganglioglioma. Case report, 979
Gene transfection
Reinforced cytotoxicity of lymphokine-activated killer cells toward glioma cells by transfection with the tumor necrosis factor-α gene, 252
Geriatrics
Management outcome in the elderly patient following subarachnoid hemorrhage, 554
Odontoid fractures in elderly patients, 32
Germ-cell tumor
Gliomatosis cerebri following radiation and chemotherapy. Letter, 158
Glioblastoma
A brain-tumor model utilizing stereotactic implantation of a permanent cannula, 959
Effect of recombinant tumor necrosis factor-α on three-dimensional growth, morphology, and invasiveness of human glioblastoma cells *in vitro*, 952
Surgical resection and radiation therapy versus biopsy and radiation therapy in the treatment of glioblastoma multiforme, 762
Glioma
A brain-tumor model utilizing stereotactic implantation of a permanent cannula, 959
The effect of transforming growth factor-β_2-specific phosphorothioate-anti-sense oligodeoxynucleotides in reversing cellular immunosuppression in malignant glioma, 944
A randomized trial of radiotherapy versus radiotherapy plus CCNU for incompletely resected low-grade gliomas: a Southwest Oncology Group study, 909
Reinforced cytotoxicity of lymphokine-activated killer cells toward glioma cells by transfection with the tumor necrosis factor-α gene, 252
Resection, biopsy, and survival in malignant glial neoplasms. A retrospective study of clinical parameters, therapy, and outcome, 767
Gliomatosis cerebri
Gliomatosis cerebri following radiation and chemotherapy. Letter, 158
Globus pallidus
Metabolism in the globus pallidus after fetal implants in rats with nigral lesions, 83
Grading system
Repair of facial nerve after removal of cerebellopontine angle tumors: a comparative study, 720
Graft, *see also* Anastomosis, vascular *and* Anastomosis, nerve
Contralateral external carotid-to-middle cerebral artery graft using the saphenous vein. Case report, 290
Superficial temporal artery interposition graft after resection of bilateral anterior cerebral arteries. Case report, 983
Granuloma
Cerebral sparganosis diagnosed and treated with stereotactic techniques. Report of two cases, 129
Differentiating solitary small cysticercus granulomas and tuberculomas in patients with epilepsy. Clinical and computerized tomographic criteria, 402
Growth factor
The effect of transforming growth factor-β_2-specific phosphorothioate-anti-sense oligodeoxynucleotides in reversing cellular immunosuppression in malignant glioma, 944
Inhibitory effect of trapidil on human meningioma cell proliferation via interruption of autocrine growth stimulation, 463
Local protective effects of nerve growth factor-secreting fibroblasts against excitotoxic lesions in the rat striatum, 267

Halo vest
Neurological complications of ankylosing spondylitis, 871
Hamartoma
Neurosurgical treatment of hypothalamic hamartomas causing precocious puberty, 77
Hand-Schüller-Christian syndrome
Intracranial xanthogranuloma of the dura in Hand-Schüller-Christian disease. Case report, 297
Head holder
Transnasal stereotactic biopsy. Letters, 524
Head injury, *see also* Brain injury
Brain ischemia in head injury. Letters, 522
Effect of THAM upon outcome in severe head injury: a randomized prospective clinical trial, 54
Improving the outcome of severe head injury with the oxygen radical scavenger polyethylene glycol-conjugated superoxide dismutase: a Phase II trial, 375
Rapid spontaneous resolution of acute extradural and subdural hematomas. Case report, 126
Transient and repetitive rises in blood pressure synchronized with plasma catecholamine increases after head injury. Report of two cases, 501
Treatment of head injuries in the American Civil War, 838
Hearing preservation
Preservation of hearing in surgery for acoustic neuromas, 864
Hemangioma
The natural history and management of symptomatic and asymptomatic vertebral hemangiomas, 36
Hemangiopericytoma
Radiosurgical treatment of recurrent hemangiopericytomas of the meninges: preliminary results, 903
Hematoma
Encapsulated intracerebral hematomas: a defined entity. Case report, 829
Multiloculated chronic subdural hematomas. Letters, 525
Rapid spontaneous resolution of acute extradural and subdural hematomas. Case report, 126
Hemispherectomy
Hemispherectomy for intractable seizures: long-term results in 17 patients followed for up to 38 years, 733
Hemodynamics
Complications of surgery for arteriovenous malformations of the brain, 176
Occlusive hyperemia: a theory for the hemodynamic complications following resection of intracerebral arteriovenous malformations, 167
Hemorrhage
Perfusion pressure and risk of AVM hemorrhage. Letters, 850
Hemostasis
Epidural migration of hemostatic agents as a cause of postthoracotomy paraplegia. Report of two cases, 658

Hiccup
Intractable hiccups: treatment by microvascular decompression of the vagus nerve. Case report, 813
Histocompatibility antigen gene
Role of histocompatibility antigen gene and proto-oncogene expressions in intracerebral tumorigenicity of mouse neuroblastoma, 619
Historical vignette
Antonio Pacchioni (1665–1726): early studies of the dura mater, 515
The Duke University Medical Center, 301
Herbert Olivecrona: founder of Swedish neurosurgery, 142
Lund University and its neurobiological traditions, 682
Treatment of head injuries in the American Civil War, 838
Hormone
Expression of androgen and progesterone receptors in primary human meningiomas, 456
Hydrocephalus
Acute obstructive hydrocephalus caused by a migrating intraventricular calculus. Case report, 826
Multiloculated hydrocephalus: craniotomy and fenestration of intraventricular septations, 70
Tonsillar herniation: the rule rather than the exception after lumboperitoneal shunting in the pediatric population, 568
Hydromyelia
Noncommunicating syringomyelia following occlusion of central canal in rats. Experimental model and histological findings, 274
Hyperbaric oxygen
Hyperbaric oxygen for brain injury. Letters, 687
Hypercapnia
Altered cerebrovascular CO_2 reactivity following subarachnoid hemorrhage in cats, 915
Hyperemia
Occlusive hyperemia: a new way to think about an old problem, 165
Hypertension
Neurogenic hypertension. Letters, 310
Transient and repetitive rises in blood pressure synchronized with plasma catecholamine increases after head injury. Report of two cases, 501
Hypervolemia
Intracranial complications of hypervolemic therapy in patients with a delayed ischemic deficit attributed to vasospasm, 423
Hypotension
Effect of systemic hypotension on cerebral energy metabolism during chronic cerebral vasospasm in primates, 112

Immunology
The effect of transforming growth factor-β_2-specific phosphorothioate-anti-sense oligodeoxynucleotides in reversing cellular immunosuppression in malignant glioma, 944
Immunosuppression
Comparison of regeneration across nerve allografts with temporary or continuous cyclosporin A immunosuppression, 90
Observations on the blood and perineurial permeability barriers of surviving nerve allografts in immunodeficient and immunosuppressed rats, 794
Immunotherapy
T-cell receptor V-gene usage in neoplasms of the central nervous system. A comparative analysis in cultured tumor infiltrating and peripheral blood T cells, 630
Infant, *see* Children
Infection
Subdural empyema: burr holes or craniotomy? A retrospective computerized tomography-era analysis of treatment in 90 cases, 574
Treatment of head injuries in the American Civil War, 838

Instrumentation
Implantation of intracerebral depth electrodes for monitoring seizures using the Pelorus stereotactic system guided by magnetic resonance imaging. Technical note, 138
Intraoperative localization using an armless, frameless stereotactic wand. Technical note, 510
The plated bayonet: a new instrument to facilitate surgery for intra-axial neoplasms of the spinal cord and brain stem. Technical note, 505
Suction control of ultrasonic aspirators. Letters, 688
Interleukin
The effect of transforming growth factor-β_2-specific phosphorothioate-anti-sense oligodeoxynucleotides in reversing cellular immunosuppression in malignant glioma, 944
Increased interleukin-6 levels in cerebrospinal fluid following subarachnoid hemorrhage, 562
Internal auditory canal
Drilling the posterior wall of the petrous pyramid: a microneurosurgical anatomical study, 452
Interventional radiology, *see* Radiosurgery
Intervertebral disc
Percutaneous endoscopic discectomy: surgical technique and preliminary results compared to microsurgical discectomy, 216
The perioperative use of corticosteroids and bupivacaine in the management of lumbar disc disease, 383
Intracerebral hemorrhage
Complications of surgery for arteriovenous malformations of the brain, 176
Intracerebral hemorrhage more than twice as common as subarachnoid hemorrhage, 188
Occlusive hyperemia: a theory for the hemodynamic complications following resection of intracerebral arteriovenous malformations, 167
Intracranial hemorrhage
Intracranial complications of hypervolemic therapy in patients with a delayed ischemic deficit attributed to vasospasm, 423
Intracranial pressure, *see* Hypertension *and* Hypotension
Intrathecal drug infusion
Intrathecal baclofen for intractable spasticity of spinal origin: results of a long-term multicenter study, 226
Ischemia
Brain ischemia in head injury. Letters, 522
Cardiovascular responses to global cerebral ischemia: role of excitatory amino acids in the ventrolateral medullary pressor area, 922
Computer-derived density spectral array in detection of mild analog electroencephalographic ischemic pattern changes during carotid endarterectomy, 884
Occlusive hyperemia: a theory for the hemodynamic complications following resection of intracerebral arteriovenous malformations, 167

Jefferson, Geoffrey
Herbert Olivecrona: founder of Swedish neurosurgery, 142

Kaolin
Noncommunicating syringomyelia following occlusion of central canal in rats. Experimental model and histological findings, 274

Lactate acidosis
Effect of THAM upon outcome in severe head injury: a randomized prospective clinical trial, 54

Index

Laminectomy
Decompressive lumbar laminectomy for spinal stenosis, 695
Lumbosacral neurenteric cyst in an infant. Case report, 821
Laser
Use of the excimer laser in high-flow bypass surgery of the brain, 477
L-glutamate
Cardiovascular responses to global cerebral ischemia: role of excitatory amino acids in the ventrolateral medullary pressor area, 922
Linear accelerator
LINAC radiosurgery: an animal model, 638
Lumbar puncture
Lumbosacral neurenteric cyst in an infant. Case report, 821
Lumbar spine
Decompressive lumbar laminectomy for spinal stenosis, 695
Percutaneous endoscopic discectomy: surgical technique and preliminary results compared to microsurgical discectomy, 216
The perioperative use of corticosteroids and bupivacaine in the management of lumbar disc disease, 383
Lumbar stenosis
Myelography still useful. Letters, 1010
Lumboperitoneal shunt
Tonsillar herniation: the rule rather than the exception after lumboperitoneal shunting in the pediatric population, 568
Lund University
Lund University and its neurobiological traditions, 682
Lymphokine-activated killer cell
The effect of transforming growth factor-β_2-specific phosphorothioate-anti-sense oligodeoxynucleotides in reversing cellular immunosuppression in malignant glioma, 944
Reinforced cytotoxicity of lymphokine-activated killer cells toward glioma cells by transfection with the tumor necrosis factor-α gene, 252
Lymphoma
Systemic T-cell lymphoma presenting with isolated neurological dysfunction and intraparenchymal brain lesions. Case report, 997

Magnetic resonance imaging
Brain-stem glioma growth patterns, 408
Pulsatile increases in aneurysm size determined by cine-phase-contrast MR angiography, 879
Mandibula
The mandibular swing-transcervical approach to the skull base: anatomical study. Technical note, 673
Median nerve
Clinical and electroneurographic evaluation of sensory/motor-differentiated nerve repair in the hand, 709
Meningioangiomatosis
Childhood meningioma associated with meningioangiomatosis. Case report, 287
Meningioma
Childhood meningioma associated with meningioangiomatosis. Case report, 287
Expression of androgen and progesterone receptors in primary human meningiomas, 456
Inhibitory effect of trapidil on human meningioma cell proliferation via interruption of autocrine growth stimulation, 463
Radiosurgical treatment of recurrent hemangiopericytomas of the meninges: preliminary results, 903
Meningitis
Biopsy-proven isolated sarcoid meningitis. Case report, 994
Intraventricular fat from a ruptured sacral dermoid cyst: clinical, radiographic, and pathological correlation. Case report, 666
Multiloculated hydrocephalus: craniotomy and fenestration of intraventricular septations, 70

Metabolism
Effect of systemic hypotension on cerebral energy metabolism during chronic cerebral vasospasm in primates, 112
Microvascular decompression
Intractable hiccups: treatment by microvascular decompression of the vagus nerve. Case report, 813
Middle cerebral artery
Comparative study of transcranial color duplex sonography and transcranial Doppler sonography in adults, 776
Giant serpentine middle cerebral artery aneurysm treated by extracranial-intracranial bypass. Case report, 974
Motor cortex
Chronic motor cortex stimulation in patients with thalamic pain, 393
Multiloculation
Multiloculated chronic subdural hematomas. Letters, 525
Myelography
Myelography still useful. Letters, 1010
Myelopathy
Progressive myelopathy secondary to odontoid fractures: clinical, radiological, and surgical features, 579

Nerve, *see* specific nerve
Nerve compression
Neurovascular compression for CNS abnormalities. Letters, 523
Nerve graft, *see also* Anastomosis, nerve
Comparison of regeneration across nerve allografts with temporary or continuous cyclosporin A immunosuppression, 90
Local protective effects of nerve growth factor-secreting fibroblasts against excitotoxic lesions in the rat striatum, 267
Nerve growth factor
Local protective effects of nerve growth factor-secreting fibroblasts against excitotoxic lesions in the rat striatum, 267
Nerve injury, *see also* Nerve repair
Clinical and electroneurographic evaluation of sensory/motor-differentiated nerve repair in the hand, 709
Nerve regeneration
Comparison of regeneration across nerve allografts with temporary or continuous cyclosporin A immunosuppression, 90
Nerve repair
Observations on the blood and perineurial permeability barriers of surviving nerve allografts in immunodeficient and immunosuppressed rats, 794
Repair of facial nerve after removal of cerebellopontine angle tumors: a comparative study, 720
Nerve-sheath tumor
Inhibition of angiogenesis and growth of human nerve-sheath tumors by AGM-1470, 470
Neuralgia
Compression of the C-2 root by a rare anomalous ectatic vertebral artery. Case report, 669
Neuroblastoma
Role of histocompatibility antigen gene and proto-oncogene expressions in intracerebral tumorigenicity of mouse neuroblastoma, 619
Neuroepithelial tumor
Is polar spongioblastoma a tumor entity? 587
Neurogenic pulmonary edema
Effect of neonatal capsaicin treatment on neurogenic pulmonary edema from fluid-percussion brain injury in the adult rat, 610
Neurolysis
The surgical treatment of painful traumatic neuromas, 714
Neuroma
Preservation of hearing in surgery for acoustic neuromas, 864
The surgical treatment of painful traumatic neuromas, 714
Neuron
Neuronal heterotopia with capillary penetration of neurons and cortical dysplasia in a patient with complex partial seizures. Case report, 654

Neurosarcoidosis
Biopsy-proven isolated sarcoid meningitis. Case report, 994
Neurosurgical history, *see also* Historical vignette
Antonio Pacchioni (1665–1726): early studies of the dura mater, 515
Herbert Olivecrona: founder of Swedish neurosurgery, 142
Lund University and its neurobiological traditions, 682
Treatment of head injuries in the American Civil War, 838
Neurosurgical treatment
Neurosurgical treatment of hypothalamic hamartomas causing precocious puberty, 77
Neurovascular compression
Compression of the C-2 root by a rare anomalous ectatic vertebral artery. Case report, 669
Neurogenic hypertension. Letters, 310
Neurovascular compression for CNS abnormalities. Letters, 523
Nicardipine
A randomized controlled trial of high-dose intravenous nicardipine in aneurysmal subarachnoid hemorrhage. A report of the Cooperative Aneurysm Study, 537
A randomized trial of nicardipine in subarachnoid hemorrhage: angiographic and transcranial Doppler ultrasound results. A report of the Cooperative Aneurysm Study, 548
Nosology
Is polar spongioblastoma a tumor entity? 587

Obituaries
Paul C. Bucy, M.D., 1904–1992, 693
Thoralf M. Sundt, Jr., M.D., 1930–1992, 1
Odontoid fracture
Odontoid fractures in elderly patients, 32
Progressive myelopathy secondary to odontoid fractures: clinical, radiological, and surgical features, 579
Oligodeoxynucleotide
The effect of transforming growth factor-β_2-specific phosphorothioate-anti-sense oligodeoxynucleotides in reversing cellular immunosuppression in malignant glioma, 944
Olivecrona, Herbert
Herbert Olivecrona: founder of Swedish neurosurgery, 142
Oncogene
Human specific c-*neu* proto-oncogene protein overexpression in human malignant astrocytomas before and after xenografting, 240
Operative technique, *see also* Surgical approach *and* specific approaches
Intraoperative localization using an armless, frameless stereotactic wand. Technical note, 510
Subdural empyema: burr holes or craniotomy? A retrospective computerized tomography-era analysis of treatment in 90 cases, 574
Total calvarial reconstruction for sagittal synostosis in older infants and children, 199
Optic nerve
Optic nerve ganglioglioma. Case report, 979
Outcome
Intracranial chordomas: a clinicopathological and prognostic study of 51 cases, 741
Management outcome in the elderly patient following subarachnoid hemorrhage, 554
Referral bias in aneurysmal subarachnoid hemorrhage, 726
Resection, biopsy, and survival in malignant glial neoplasms. A retrospective study of clinical parameters, therapy, and outcome, 767
Seizure control after surgery on cerebral arteriovenous malformations, 12
Seizure outcome in patients with surgically treated cerebral arteriovenous malformations, 5
Transsphenoidal adenomectomy for growth hormone-secreting pituitary adenomas in acromegaly: outcome analysis and determinants of failure, 205
Oxygen radical scavenger
Improving the outcome of severe head injury with the oxygen radical scavenger polyethylene glycol-conjugated superoxide dismutase: a Phase II trial, 375

Pacchioni, Antonio
Antonio Pacchioni (1665–1726): early studies of the dura mater, 515
Pain
Chronic motor cortex stimulation in patients with thalamic pain, 393
The expression of deafferentation dysesthesias reduced by dorsal root entry zone lesions in the rat, 598
The surgical treatment of painful traumatic neuromas, 714
Paraplegia
Epidural migration of hemostatic agents as a cause of postthoracotomy paraplegia. Report of two cases, 658
Serotonergic manipulations in experimental neoplastic spinal cord compression, 929
Parvalbumin
Parvalbumin and calbindin D-28K immunoreactivity in central ganglioglioma and dysplastic gangliocytoma of the cerebellum. Report of two cases, 133
Perfusion pressure
Perfusion pressure and risk of AVM hemorrhage. Letters, 156, 850
Petrous pyramid
Drilling the posterior wall of the petrous pyramid: a microneurosurgical anatomical study, 452
Photochemical lesion
Thienylphencyclidine protection for the spinal cord of adult rats against extension of lesions secondary to a photochemical injury, 603
Plasminogen activator
Prospective study on the prevention of cerebral vasospasm by intrathecal fibrinolytic therapy with tissue-type plasminogen activator, 430
Platelet-activating factor
Platelet-activating factor and cerebral vasospasm following subarachnoid hemorrhage, 592
Platelet-derived growth factor
Inhibitory effect of trapidil on human meningioma cell proliferation via interruption of autocrine growth stimulation, 463
Polyposis
Intracerebral polyposis. Case report, 294
Potassium
Contributions of ions and albumin to the formation and resolution of ischemic brain edema, 257
Precocious puberty
Neurosurgical treatment of hypothalamic hamartomas causing precocious puberty, 77
Prognosis, *see also* Outcome
Brain-stem glioma growth patterns, 408
Intracranial chordomas: a clinicopathological and prognostic study of 51 cases, 741
Resection, biopsy, and survival in malignant glial neoplasms. A retrospective study of clinical parameters, therapy, and outcome, 767
Significance of proliferating cell nuclear antigen index in predicting pituitary adenoma recurrence, 753
Proto-oncogene
Expression of androgen and progesterone receptors in primary human meningiomas, 456
Role of histocompatibility antigen gene and proto-oncogene expressions in intracerebral tumorigenicity of mouse neuroblastoma, 619

Index

Pulmonary pressure
Effect of neonatal capsaicin treatment on neurogenic pulmonary edema from fluid-percussion brain injury in the adult rat, 610

Radiation necrosis
LINAC radiosurgery: an animal model, 638
Radiation therapy
Conventional radiation therapy of intracranial arteriovenous malformations: long-term results, 413
The long-term outcome after surgical treatment of dorsally exophytic brain-stem gliomas, 859
A randomized trial of radiotherapy versus radiotherapy plus CCNU for incompletely resected low-grade gliomas: a Southwest Oncology Group study, 909
Surgical resection and radiation therapy versus biopsy and radiation therapy in the treatment of glioblastoma multiforme, 762
Radiosurgery
LINAC radiosurgery: an animal model, 638
Preservation of hearing in acoustic neurinoma surgery. Letters, 154
The radiobiology of human acoustic schwannoma xenografts after stereotactic radiosurgery evaluated in the subrenal capsule of athymic mice, 645
Radiosurgery for venous angiomas, 531
Radiosurgical treatment of recurrent hemangiopericytomas of the meninges: preliminary results, 903
Transluminal angioplasty for atherosclerotic disease of the vertebral and basilar arteries, 192
Rathke's cleft
Colloid cyst of the third ventricle. A comparative immunohistochemical study of neuraxis cysts and choroid plexus epithelium, 101
Rhinorrhea
Intracerebral polyposis. Case report, 294
Rhizotomy
Treatment of spasmodic torticollis with intradural selective rhizotomies, 46

Schwannoma
The radiobiology of human acoustic schwannoma xenografts after stereotactic radiosurgery evaluated in the subrenal capsule of athymic mice, 645
Sclerosteosis
Sclerosteosis: neurosurgical experience with 14 cases, 388
Seizure
Control of temporal lobe epilepsy following *en bloc* resection of low-grade tumors, 19
Differentiating solitary small cysticercus granulomas and tuberculomas in patients with epilepsy. Clinical and computerized tomographic criteria, 402
Epileptogenic effect of antibiotic drugs, 938
Hemispherectomy for intractable seizures: long-term results in 17 patients followed for up to 38 years, 733
Implantation of intracerebral depth electrodes for monitoring seizures using the Pelorus stereotactic system guided by magnetic resonance imaging. Technical note, 138
Intraoperative electrocorticography during tumor resection: impact on seizure outcome in patients with gangliogliomas, 891
Neuronal heterotopia with capillary penetration of neurons and cortical dysplasia in a patient with complex partial seizures. Case report, 654
Seizure control after surgery on cerebral arteriovenous malformations, 12
Seizure outcome in patients with surgically treated cerebral arteriovenous malformations, 5
Spontaneous temporal encephalocele. Case report, 492
Vagus nerve stimulation for complex partial seizures: surgical technique, safety, and efficacy, 26
Sensory mapping
Mapping of sensory responses to epidural stimulation of the intraspinal neural structures in man, 233
Serotonin
Serotonergic manipulations in experimental neoplastic spinal cord compression, 929
Shunt, *see also* type of shunt
Distal catheter lengthening. Letters, 853
Skull base
The mandibular swing-transcervical approach to the skull base: anatomical study. Technical note, 673
Sodium
Contributions of ions and albumin to the formation and resolution of ischemic brain edema, 257
Sparganosis
Cerebral sparganosis diagnosed and treated with stereotactic techniques. Report of two cases, 129
Spasticity
Intrathecal baclofen for intractable spasticity of spinal origin: results of a long-term multicenter study, 226
Spectroscopy
Effect of systemic hypotension on cerebral energy metabolism during chronic cerebral vasospasm in primates, 112
Spinal accessory nerve
Spinal accessory-facial nerve anastomosis. Letters, 312
Spinal cord
Mapping of sensory responses to epidural stimulation of the intraspinal neural structures in man, 233
Spinal angiolipomas. Report of three cases, 280
Surgical resection of intramedullary spinal cord cavernous malformations, 446
The plated bayonet: a new instrument to facilitate surgery for intra-axial neoplasms of the spinal cord and brain stem. Technical note, 505
Spinal cord compression
Epidural migration of hemostatic agents as a cause of postthoracotomy paraplegia. Report of two cases, 658
Intraspinal extradural meningeal cyst demonstrating ball-valve mechanism of formation. Case report, 122
Serotonergic manipulations in experimental neoplastic spinal cord compression, 929
Spinal cord injury
Intrathecal baclofen for intractable spasticity of spinal origin: results of a long-term multicenter study, 226
Posttraumatic spinal cord tethering. Case report, 120
Thienylphencyclidine protection for the spinal cord of adult rats against extension of lesions secondary to a photochemical injury, 603
Spinal cord neoplasm
Serotonergic manipulations in experimental neoplastic spinal cord compression, 929
Spinal dysraphism
Myelomeningocele and thick filum terminale with tethered cord appearing as a human tail. Case report, 966
Spinal stabilization
Halifax interlaminar clamp for posterior cervical fusion: a long-term follow-up review, 702
Neurological complications of ankylosing spondylitis, 871
Odontoid fractures in elderly patients, 32
Spinal stenosis
Decompressive lumbar laminectomy for spinal stenosis, 695
Spirometra mansoni
Cerebral sparganosis diagnosed and treated with stereotactic techniques. Report of two cases, 129
Spondylolisthesis
Decompressive lumbar laminectomy for spinal stenosis, 695
Spondyloptosis
Cervical spondyloptosis. Letters, 853
Spongioblastoma
Is polar spongioblastoma a tumor entity? 587

Stereotaxis
Cerebral sparganosis diagnosed and treated with stereotactic techniques. Report of two cases, 129
Conventional radiation therapy of intracranial arteriovenous malformations: long-term results, 413
Implantation of intracerebral depth electrodes for monitoring seizures using the Pelorus stereotactic system guided by magnetic resonance imaging. Technical note, 138
Intraoperative localization using an armless, frameless stereotactic wand. Technical note, 510
Striatum
Local protective effects of nerve growth factor-secreting fibroblasts against excitotoxic lesions in the rat striatum, 267
Stroke
Contributions of ions and albumin to the formation and resolution of ischemic brain edema, 257
Study bias
Referral bias in aneurysmal subarachnoid hemorrhage, 726
Subarachnoid hemorrhage
Altered cerebrovascular CO_2 reactivity following subarachnoid hemorrhage in cats, 915
Histological studies of intracranial vessels in primates following transluminal angioplasty for vasospasm, 481
Increased interleukin-6 levels in cerebrospinal fluid following subarachnoid hemorrhage, 562
Intracerebral hemorrhage more than twice as common as subarachnoid hemorrhage, 188
Intracranial complications of hypervolemic therapy in patients with a delayed ischemic deficit attributed to vasospasm, 423
Management outcome in the elderly patient following subarachnoid hemorrhage, 554
Platelet-activating factor and cerebral vasospasm following subarachnoid hemorrhage, 592
Prospective study on the prevention of cerebral vasospasm by intrathecal fibrinolytic therapy with tissue-type plasminogen activator, 430
Pulsatile increases in aneurysm size determined by cine phase-contrast MR angiography, 879
A randomized controlled trial of high-dose intravenous nicardipine in aneurysmal subarachnoid hemorrhage. A report of the Cooperative Aneurysm Study, 537
A randomized trial of nicardipine in subarachnoid hemorrhage: angiographic and transcranial Doppler ultrasound results. A report of the Cooperative Aneurysm Study, 548
Referral bias in aneurysmal subarachnoid hemorrhage, 726
Transcallosal interforniceal approach for a posteriorly projecting high basilar bifurcation aneurysm. Case report, 970
Use of transcranial Doppler sonography to predict development of a delayed ischemic deficit after subarachnoid hemorrhage, 183
Subdural empyema
Subdural empyema: burr holes or craniotomy? A retrospective computerized tomography-era analysis of treatment in 90 cases, 574
Subdural hematoma
Multiloculated chronic subdural hematomas. Letters, 525
Rapid spontaneous resolution of acute extradural and subdural hematomas. Case report, 126
Substantia nigra
Metabolism in the globus pallidus after fetal implants in rats with nigral lesions, 83
Suction control
Suction control of ultrasonic aspirators. Letters, 688
Sundt, Thoralf M, Jr.
Thoralf M. Sundt, Jr., M.D., 1930–1992, 1
Superficial temporal artery
Superficial temporal artery interposition graft after resection of bilateral anterior cerebral arteries. Case report, 983
Superoxide dismutase
Improving the outcome of severe head injury with the oxygen radical scavenger polyethylene glycol-conjugated superoxide dismutase: a Phase II trial, 375
Surgical approach, *see also* Operative technique *and* specific approaches
Improved transdural exposure and temporary occlusion of the petrous internal carotid artery for cavernous sinus surgery. Technical note, 834
Posterior fossa craniotomy for lesions of the cerebellopontine angle. Technical note, 508
The mandibular swing-transcervical approach to the skull base: anatomical study. Technical note, 673
A study of safe entry zones via the floor of the fourth ventricle for brain-stem lesions. Report of three cases, 987
Synostosis
Total calvarial reconstruction for sagittal synostosis in older infants and children, 199
Syringomyelia
Noncommunicating syringomyelia following occlusion of central canal in rats. Experimental model and histological findings, 274

Tail
Myelomeningocele and thick filum terminale with tethered cord appearing as a human tail. Case report, 966
T-cell receptor
T-cell receptor V-gene usage in neoplasms of the central nervous system. A comparative analysis in cultured tumor infiltrating and peripheral blood T cells, 630
Temporal bone
Spontaneous temporal encephalocele. Case report, 492
Temporal lobe
Control of temporal lobe epilepsy following *en bloc* resection of low-grade tumors, 19
Terminology
The myth of eloquent cortex, or what is non-eloquent cortex? Letters, 1009
Tethered cord
Posttraumatic spinal cord tethering. Case report, 120
Thalamic pain
Chronic motor cortex stimulation in patients with thalamic pain, 393
Thalamotomy
Thalamic target for tremor. Letters, 312
Thienylphencyclidine
Thienylphencyclidine protection for the spinal cord of adult rats against extension of lesions secondary to a photochemical injury, 603
Third ventricle
High recurrence rate following aspiration of colloid cysts in the third ventricle, 748
Thoracotomy
Epidural migration of hemostatic agents as a cause of postthoracotomy paraplegia. Report of two cases, 658
Thrombin
Bovine thrombin-induced inhibitor of factor V and bleeding risk in postoperative neurosurgical patients. Report of three cases, 817
Tonsillar herniation
Posttraumatic spinal cord tethering. Case report, 120
Tonsillar herniation: the rule rather than the exception after lumboperitoneal shunting in the pediatric population, 568
Torticollis
Treatment of spasmodic torticollis with intradural selective rhizotomies, 46
Transcallosal approach
Transcallosal interforniceal approach for a posteriorly projecting high basilar bifurcation aneurysm. Case report, 970
Transforming growth factor
The effect of transforming growth factor-β_2-specific phosphorothioate-anti-sense oligodeoxynucleotides in reversing cel-

lular immunosuppression in malignant glioma, 944
Transoral approach
Progressive myelopathy secondary to odontoid fractures: clinical, radiological, and surgical features, 579
Transsphenoidal approach
Transsphenoidal adenomectomy for growth hormone-secreting pituitary adenomas in acromegaly: outcome analysis and determinants of failure, 205
Trapidil
Inhibitory effect of trapidil on human meningioma cell proliferation via interruption of autocrine growth stimulation, 463
Tremor
Thalamic target for tremor. Letters, 312
Trigeminal neuralgia
External carotid artery fistula due to microcompression of the gasserian ganglion for relief of trigeminal neuralgia. Case report, 499
Tromethamine
Effect of THAM upon outcome in severe head injury: a randomized prospective clinical trial, 54
Tuberculoma
Differentiating solitary small cysticercus granulomas and tuberculomas in patients with epilepsy. Clinical and computerized tomographic criteria, 402
Tumor, *see also* specific tumors *and* locations
Control of temporal lobe epilepsy following *en bloc* resection of low-grade tumors, 19
Tumor necrosis factor
Effect of recombinant tumor necrosis factor-α on three-dimensional growth, morphology, and invasiveness of human glioblastoma cells *in vitro*, 952
Reinforced cytotoxicity of lymphokine-activated killer cells toward glioma cells by transfection with the tumor necrosis factor-α gene, 252
Tumor recurrence
Significance of proliferating cell nuclear antigen index in predicting pituitary adenoma recurrence, 753

Ulnar nerve
Clinical and electroneurographic evaluation of sensory/motor-differentiated nerve repair in the hand, 709
Ultrasonic surgical aspirator
Suction control of ultrasonic aspirators. Letters, 688
Ultrasound
Comparative study of transcranial color duplex sonography and transcranial Doppler sonography in adults, 776
A randomized trial of nicardipine in subarachnoid hemorrhage: angiographic and transcranial Doppler ultrasound results. A report of the Cooperative Aneurysm Study, 548
Use of transcranial Doppler sonography to predict development of a delayed ischemic deficit after subarachnoid hemorrhage, 183

Vagus nerve
Intractable hiccups: treatment by microvascular decompression of the vagus nerve. Case report, 813
Vagus nerve stimulation for complex partial seizures: surgical technique, safety, and efficacy, 26
Vascular malformation
Therapeutic alternatives for vein of Galen vascular malformations, 438
Vasospasm
Effect of systemic hypotension on cerebral energy metabolism during chronic cerebral vasospasm in primates, 112
Histological studies of intracranial vessels in primates following transluminal angioplasty for vasospasm, 481
Platelet-activating factor and cerebral vasospasm following subarachnoid hemorrhage, 592
Prospective study on the prevention of cerebral vasospasm by intrathecal fibrinolytic therapy with tissue-type plasminogen activator, 430
A randomized controlled trial of high-dose intravenous nicardipine in aneurysmal subarachnoid hemorrhage. A report of the Cooperative Aneurysm Study, 537
A randomized trial of nicardipine in subarachnoid hemorrhage: angiographic and transcranial Doppler ultrasound results. A report of the Cooperative Aneurysm Study, 548
Temporal profile and significance of metabolic failure and trophic changes in the canine cerebral arteries during chronic vasospasm after subarachnoid hemorrhage, 807
Use of transcranial Doppler sonography to predict development of a delayed ischemic deficit after subarachnoid hemorrhage, 183
Vein of Galen
Therapeutic alternatives for vein of Galen vascular malformations, 438
Ventriculoperitoneal shunt
Distal catheter lengthening. Letters, 853
Vertebral hemangioma
The natural history and management of symptomatic and asymptomatic vertebral hemangiomas, 36
Vestibular aqueduct
Drilling the posterior wall of the petrous pyramid: a microneurosurgical anatomical study, 452

Xanthogranuloma
Intracranial xanthogranuloma of the dura in Hand-Schüller-Christian disease. Case report, 297
Xenograft
Human specific c-*neu* proto-oncogene protein overexpression in human malignant astrocytomas before and after xenografting, 240
The radiobiology of human acoustic schwannoma xenografts after stereotactic radiosurgery evaluated in the subrenal capsule of athymic mice, 645